

# Max-Planck-Institut für extraterrestrische Physik

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## **Imprint**

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Max-Planck-Institut für extraterrestrische Physik

Editors and Layout:

W. Collmar, B. Niebisch

# PERSONNEL 2016

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## Scientific Honours, Appointments

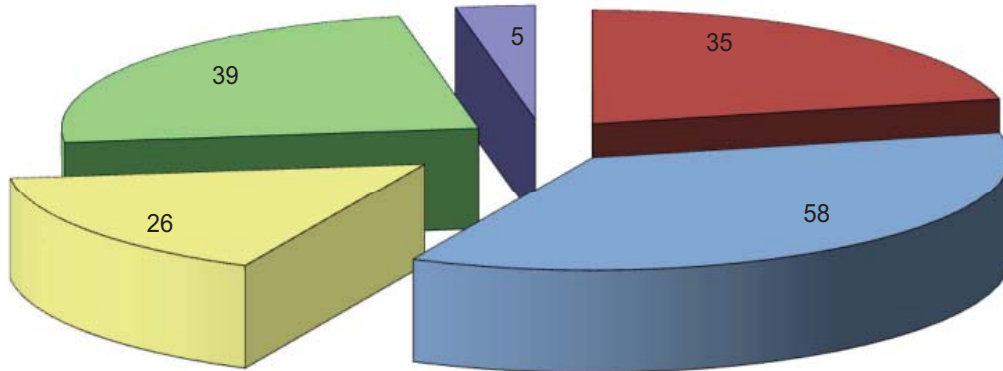
Pfuhl, O.: MERAC-Price, European Astronomical Society, Athens, Greece, July 2016.

Trümper, J.: Tycho Brahe Price, European Astronomical Society, Athens, Greece, July 2016.

van Dishoeck, E.: John Bahcall Lecture, NASA GSFC, Greenbelt, USA, March 2016.

## Science Groups

### Staff Members by Science Group



■ Infrared     
 ■ HE-Astrophysics     
 ■ CAS     
 ■ OPINAS     
 ■ Research Groups

#### Infrared- and Submillimeter-Astronomy

Secretary: Harai-Ströbl, S.

Team Assistant: Dengler, S.; Kleiser, A.; Zanker-Smith, J.

Bauböck, Dr. M. (since 01.09.); Belli, Dr. S.; Berta, Dr. S. (until 30.04.); Bisbas, Dr. T. (until 05.07.); Burtscher, Dr. L.; Cazzoletti, Dr. P.; Contursi, Dr. A.; Davies, Dr. R.; Deen, Dr. C. (since 01.08.); de Jong, Dr. J.A. (until 31.07.); Dr. K.; Dexter, Dr. J.; Doublier Pritchard, Dr. V. (until 30.04.); Eisenhauer, Dr. F.; Facchini, Dr. S.; Feuchtgruber, Dipl.-Phys. H.; Förster Schreiber, Dr. N.; George, Dr. L.; Gillissen, Dr. S.; Gracia Carpio, Dr. J. (until 31.07.); Habibi, Dr. M.; Hartl, Dr. M.; Herrera-Camus, Dr. R.; Lutz, Dr. D.; Müller, Dr. T. (until 30.04.); Nelson, Dr. E. (since 01.09.); Orban de Xivry, G. (until 31.03.); Osterhage, S.; Pfuhl, Dr. O.; Poglitsch, Dr. A. (beurlaubt); Rabien, Dr. S.; Rosensteiner, Dr. M. (since 04.10.); Schruba, Dr. A.; Shimizu, Dr. T. (since 04.10.); Sturm, Dr. E.; Tadaki, Dr. K.; Tacconi, Dr. L.; Wisnioski, Dr. E.; Wuyts, Dr. E. (until 31.01.); Yazici, Dipl.-Phys. S.

#### Guests

Alexander, Prof. T. (02.-05.05.); Bisbas, Dr. T. (24.-28.10.); Boneberg, D. (20.-24.06.; 04.-08.07.); Bosman, A. (08.-12.08.); Bruderer, Dr. S. (08.-12.08.); Calderón, D. (13.-23.12.); Cuadra, Dr. J., (12.06.-13.07.); Kewley, Prof. L. (28.06.-01.07.); Lani, Dr. C. (04.-08.07.); McLane, J. (15.-26.08.); Miotello, A. (21.03.-03.04.); Netzer, Prof. H. (28.-

29.07.); Renzini, Prof. A. (07.-25.11.); Saintonge, Prof. A. (11.-21.04.); Sternberg, Prof. A. (07.-10.11.); Veilleux, Prof. S. (14.-21.07.)

#### PhD (D.) / Master (M.)

Cazzoletti, P. (D., van Dishoeck); Worth-Davies, R. (since 01.09, D., Tacconi/Förster Schreiber/Genzel); Fellenberg von, S. (since 04.07., M., Eisenhauer/Gillessen); Gräff, D. (until 31.08., M., Eisenhauer); Janssen, A. (D., Sturm); Jiménez Rosales, A. (since 03.08., D., Dexter/Genzel); Lang, P. (until 06.09., D., Förster Schreiber); Lin, M.-Y. (D, Davies); Lippa, M. (D., Tacconi); Plewa, P. (D., Gillessen); Schmalzl, S. (until 30.11., M., Eisenhauer/Gillessen); Sicheneder, E. (until 01.08., M., Dexter); Übler, H. (D., Genzel); Waisberg, I. (D., Genzel)

#### High-Energy Astrophysics

Secretary: Boller, B.

Team Assistant: Frankenhuizen, W.

Andritschke, Dr. R.; Bähr, A. (until 30.09.); Becker, Dr. W.; Behrens, Dr. A. (since 17.10.); Boller, Prof. Dr. T.; Bräuning, Dr. H.; Brimiouille, F. (since 01.03.); Brunner, Dr. H.; Burkert, Dr. W.; Buron, A.; Burwitz, Dr. V.; Carpano, Dr. S. (until 31.07.); Chen, Dr. J.; Chichuan, Dr. J.; Clerc, Dr. N.; De Marco, Dr. B.; Del Moro, Dr. A.; Dennerl, Dr. K.; Diehl, Dr. R.; Dwelly, Dr. T.; Eraerds, Dr. T.; Eder, Dipl.-Ing. J.; Emberger, V.; Erfanianfar, Dr. G.; Freyberg, Dr. M.;

Friedrich, Dr. P.; Fürmetz, Dr. M.; Gaida, R.; Gardner, Dr. E. (since 18.10.); Georgakakis, Dr. A.; Graham, Dr. J.; Guéguen, Dr. A.; Greiner, Dr. J.; Grossberger, Dr. C.; Haberl, Dr. F.; Hartmann, K.; Hartner, Dipl.-Math. G.; Hauser, G.; Kienlin von, Dr. A.; Klein, Dr. M.; Kruehler, Dr. Th.; Koch, A.; Maitra, Dr. Ch. (since 01.09.); Meidinger, Dr. N.; Merloni, Dr. A.; Ott, S.; Pellicciari, C. (since 01.11.); Pfeffermann, Dipl.-Phys. E.; Predehl, Dr. P.; Ponti, Dr. G.; Proserpio, Dr. L.; Rau, Dr. A.; Reiffers, J.; Sanders, Dr. J.; Schady, Dr. P.; Treberspurg, Dr. W.; Tüchler, A.; Yates, Dr. R.; Zhang, Dr. X.-L.

### Guests

Afonos, Dr. P. (01.-30.7.); Baykal, Prof. Dr. A. (02.-24.7.); Brand, T. (01.-30.4.); Buchner, Dr. J. (18.7.-05.08. und 07.11.-10.12.); Burgess, Dr. M. (20.05.-07.06.); Canalizo, Dr. G. (08.-11.12.); Cibirka de Oliveira, N. (01.06.-31.07. und 14.-25.11.); Dagdeviren, E. (since 05.10.); Faßbender, Dr. R. (since 01.01.); Filipovic, Dr. M. (29.09.-04.10.); Fox, Prof. Dr. D. (06.06.-28.07.); Grün, D. (17.04.-02.05.); Kanbach, Dr. G.; Kirkpatrick, C. (11.-14.07.); Kroupa, Dr. P. (30.08.-05.09.); Lang, M. (since 01.08.); Malyali, A. (04.-31.07.); Medina, R. (07.07.-02.09.); Mingwu, W.; Molham Mostafa, M. (01.-16.09.); Pietsch, Dr. W.; Perma, Dr. R. (20.-23.01.); Poorna Pedapudi, V. (15.04.-15.07.); Prete, G. (18.06.-31.07.); Prinz, Dr. T. (until 30.06.); Sala, Dr. G. (26.07.-09.08.); Sanner, J. (21.03.-31.07.); Scaringi, Dr. S.; Singh, Prof. Dr. K. (30.08.-04.09.); Strong, Dr. A.; van Eerten, Dr. H. (until 31.07.); Voges, Dr. W.; von der Horst, A. (27.06.-01.07.)

### PhD (D.) / Master (M.)

Baronchelli, L. (since 01.09., D., Nandra); Bauer, L. (M., Becker); Bernhardt, M.G. (D., Becker); Bodensteiner, J. (M., Greiner); Bolmer, J. (D., Greiner); Breunig, E. (until 31.08., M., Predehl); Coffey, D. (D., Salvato/Boller); Delvaux, C. (D., Greiner); Ghaempanah, M. (D., Diehl/Ensslin); Hofmann, F. (D., Merloni); Kaefer, F. (D., since 25.05.); Knust, F. (D., Greiner); Kohlmann, C. (since 01.04., M., Becker); Kroell, D. (D., Diehl); Mantovani, G. (D., Nandra); Müller-Seidlitz, J. (D., Becker/Meidinger); Madaraz, E. (M., Predehl); Menz, B. (until 31.08., D., Burwitz); Pleintinger, M. (since 01.12., M., Diehl); Riedl, J. (D., Nandra); Schweyer, T. (M., Greiner); Siegert, T. (D., Diehl); Simm, T. (since 01.10., D., Merloni); Tanga, M. (D., Schady/Greiner); Toelge, K. (M., Greiner); Varela, K. (D., Greiner); Vasilopoulos, G. (D., Haberl); Wiseman, Ph. (D., Schady); Yu, H.-F. (D., Greiner)

### Optical and Interpretative Astronomy

Secretary: Ingram, C.; Niebisch, B.

Beifiori, Dr. A.; Bode, Dr. A.; Bodendorf, Dr. C.; Böhringer, Prof. Dr. H.; Bohnet, Dipl. Phys. A.; Brucalassi, Dr. A. (until 30.09.); Chan, Dr. J. (until 01.11.); Fabricius, Dr. M. (since 01.07.); Farrow, Dr. D.; Fossati, Dr. M.; Galametz, Dr. A.; Geis, Dr. N.; Gerhard, Prof. Dr. O.; Goldenbogen, O. (until 30.06.); Gracia Carpio, Dr. J. (since 01.07.); Grupp, Dr. F.; Hartung, I.; Hopp, Dr. U.; Kaminski, J. (since 18.07.);

Koppenhöfer, Dr. J. (until 31.03.); Katterloher, Dr. R.; Mazzalay, Dr. X.; Mendel, Dr. T.; Monna, Dr. A.; Montesano, Dr. F.; Obermeier, Dr. C.; Opitsch, Dr. M.; Penka, M.Sc. D.; Perez-Villegas, Dr. A.; Piemonte, A.; Raison, Dr. F.; Salazar, Dr. S. (until 31.08.); Saglia, PD. Dr. R.; Sanchez, Dr. A.; Snigula, Dr. J.; Wang, Dr. L.; Thomas, Dr. J.; Wegg, Dr. C.; Weller, Prof. Dr. J.; Weiss, I.; Wetzstein, Dr. M.; Wimmer, Dipl. Ing. C.

### Guests

Bustamante Rosell, M. (21.06.-05.07.); Drory, Dr. N. (01.-31.07.); Fukugita, Prof. Dr. M. (26.09.-26.12.); Gebhardt, Dr. K. (01.-31.07.); Hill, Dr. G. (12.-23.07.); Kormendy, Prof. Dr. J. (19.08.-30.09.); Longobardi, Dr. A. (10.04.-31.07.); Noyola, Dr. E. (01.-31.07.); Pegetto, I. (08.-30.06.); Rodriguez-Ardila, Dr. R. (30.06.-07.07.); Rudnik, Dr. G. (01.01.-30.06.); Schäfer, Dr. A. (16.-24.06.); Sellwood, Dr. J. (28.05.-28.06.); Verapalumbo, A. (04.04.-04.07.); Zeimann, G. (11.-15.07.)

### PhD (D.) / Master (M.)

Arth, A. (D., Bender); Bolze, R. (M., Bender); Blana Diaz, M. (D., Gerhard); Fahrenschon, V. (M., Saglia); Finozzi, F. (D., Saglia); Grieb, J. (D., Bender); Häuser, M. (D., Bender); Hou, J. (D., Bender); Kellermann, H. (D., Grupp); Kluge, M. (D., Bender); Kodric, M. (D., Bender); Lippich, M. (D., Bender); Opitsch, M. (D., Saglia); Portail, M. (D., Gerhard); Pulsoni, C. (D., Gerhard); Rosotti, G. (M., Bender); Salazar-Albornoz, S. (D., Sanchez); Simm, T. (M., Saglia); Söldner-Rembold, I. (D., Gerhard); Walmsley, N. (D., Thomas)

### Center for Astrochemical Studies

Secretary: Langer, A.

Ali-Lagoa, Dr. V. (since 01.11.); Bailey, Dr. J. (until 30.04.); Bailey, Dr. N. (until 30.06.); Bano Esplugues, Dr. G. (since 01.09.); Bizzocchi, Dr. L.; Choudhury, Dr. R.; de Oliveira Alves, Dr. F.; Egnér Goto, Dr. M.; Endres, Dr. Ch.; Feng, Dr. S.; Giuliano, Dr. B.M.; Riaz, Dr. B.; Hocuk, Dr. S.; Ivlev, Dr. A.; Kompaneets, Dr. R. (until 31.05.); Laas, Dr. J.; Lattanzi, Dr. V.; Maier, Dipl.-Ing. P. (since 01.04.); Müller, Dr. T. (since 01.05.); Pineda Fornerod, Dr. J.; Röcker, Dr. T. (until 31.05.); Schmiedeke, Dr. A. (since 01.09.); Sipilä, Dr. O.; Spezzano, Dr. S.; Szűcs, Dr. L.; Thi, Dr. W.; Vasyunin, Dr. A.; Zhao, Dr. B.; Zhdanov, Dr. S. (until 31.05.)

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A. (01.-22.04.); McCarthy, M. (15.-18.11.); Oka, T. (21.-28.09.); Padovani, M. (07.-11.11.); Patterson, D. (02.-08.06.); Pietropolli, A. (16.-19.11.); Pon, A. (23.-26.06.); Schlemmer, S. (26.-30.09.); Scire, C. (09.-13.05.); Stahler, S. (15.-21.05.); Tafalla, M. (07.-10.06.); Tamassia, F. (14.-18.12.); Tan, J. (20.05.-12.06.); Urso, R. (09.-13.05.); Walmsley, M. (18.-22.01.); Widdicus-Weaver, S. (03.-08.10.); Yurchenko, S. (04.-08.06.); Zayster, K. (03.-08.06.)

***PhD (D.) / Master (M.)***

Agurto Gangas, C. (D., Caselli); Barnes, A. (since 01.06., D., Caselli); Chacon Tanarro, A. (D., Caselli); Chantzos, J. (since 01.10., D., Spezzano); Punanova, A. (D., Caselli); Prudeniano, D. (seit 01.05., D., Caselli); Redaelli, E. (01.03.-30.11., M., Caselli); Schamberger, T. (until 31.07., M., Endres); Sokolov, V. (D., Caselli)

**Research Group Burkert**

Ballone, Dr. A.; Burkert, Prof. Dr. A.; Ogiya, Dr. G.

***PhD (D.) / Master (M.)***

Behrendt, M. (D., Burkert); Heigl, S. (D., Burkert)

**Research Group Mohr**

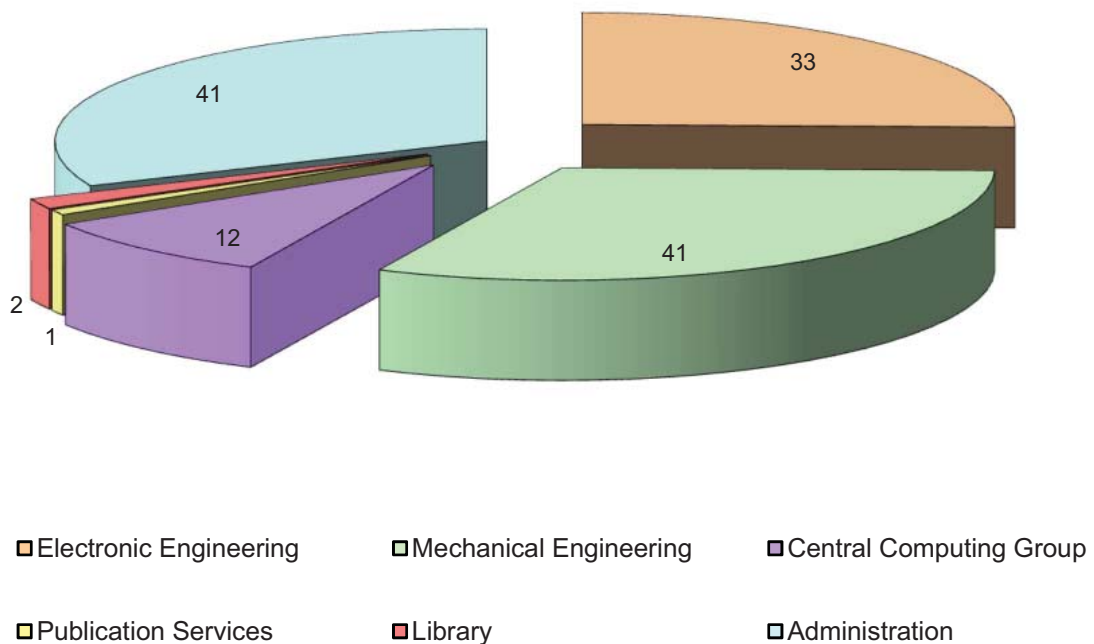
Klein, Dr. M.; Mohr, Prof. Dr. J.

***PhD (D.) / Master (M.)***

Grandis, S. (D., Mohr); Gupta, N. (D., Mohr)

## Engineering and Workshop

### Engineering, Workshops and Central Services Staff



#### Electronic Engineering

Plattner, Dr. M. (Head of Electronics)

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#### Electronical Workshop and Utilities Management

Reiss, P. (Head)

Cibooglu, H.; Emslander, A.; Gressmann, R.; Krämer, S.; Langer, P.; Oberauer, F.; Özdemir, H.; Rupprecht, T.; Schneider, M.

#### PhD (D) / Master (M)

Avad, A. (M., Plattner); Lederhuber, A. (M., Plattner); Per-vaiz, U. (M., Plattner)

#### Mechanical Engineering and Test Facilities

Schubert, Dr. J. (Head of Mechanics)

Alhamwi, R. (since 01.09.); Blasi, T.; Deysenroth, C.; Deysenroth, M.; Dittrich, Dipl.- Ing. (FH) K.; Gemperlein, Dipl.-Phys. H.; Haug, Dipl.-Ing. (FH) M.; Hartl, Dr. M.; Haußmann, F.; Huber, Dipl.-Ing. H.; Mican, Dipl.-Ing. B.; Paßlack, Dipl.-Ing (FH), S.; Pflüger, Dipl.-Ing. (FH) A.; Pietschner, Dipl.-Ing. (FH) D.; Plangger, M.; Rohe, C.; Schreib, R.; Strecker, R.

#### Mechanical Workshop

Czempiel, S. (Head)

Bayer, R.; Brara, A.; Budau, B.; Dietrich, G. (until 31.08.); Eibl, J.; Feldmeier, P.; Gahl, J.; Goldbrunner, A.; Hartwig, J.; Honsberg, M.; Huber, D.; Huber, F.-X.; Kestler, H.-J.; Kratschmann T.; Leimböck, F. (until 31.08.); Reinold, A.; Sandmair, R.; Schneider, A. (since 01.08.); Schunn, W.; Schuppe, D.; Senftleben, S.; Soller, F.

#### Apprentices

Fischer, C.; Furchtsam, C. (since 01.09.); Kohnert, P. (until 31.08.); Lenzewski, S.; Liebhold, T.; Waldhör, F. (since 01.09.); Warmuth, C.; Ziegemeier, J.

#### PhD (D) / Master (M)

Hörmann, V. (M., Schubert); März, K. (M., Schubert)

## Student Assistants and Interns

### **Student Assistants**

Boehme, H.; Delgado, D.; Hörmann, V.; Karnehm, V.;  
Khan, R.A.; März, K.; Rüdtenklau, R.

### ***Work Experience (University)***

Fuchs, M.; Gensior, J.; Hernaiz Martinez, V.; Hörmann, V.;  
Penzinger, J.; Rüdtenklau, R.; von Fellenberg, S.; Ott, G.

### **Practical Work Experience**

#### ***Work Experience (High School)***

Drewes, N.; Fünfgelder, B.; Giorgi, E.; Guedde, V.; Ha-  
gemann, D.; Huber, M.; Lopez, C.; Müllner, J.; Piwek, N.;  
Pudic, T.; Rother, L.; Schlett, N.; Zaindl, N.



## Central Services

### Computing

#### Central Computing Committee

Haberl, Dr. F. (Head)  
 Bohnet, Dipl.-Phys. A.; Endres, Dr. C.; Freyberg, Dr. M.;  
 Gracia Carpio, Dr. J.; von Kienlin, Dr. A.; Müller, Dipl.-Ing.  
 (FH) S.; Ott, Dr. T. (Deputy); Rohé, C.; Schubert, Dr. J.

#### Central Computing Support Group

Haberl, Dr. F. (until 30.09.);  
 Bohnet, Dipl. Phys. A (since 01.10.) (Head)  
 Agudo Berbel, A. (since 01.01.); Baumgartner, H.; Kleiser,  
 A.; Klose, L.; Kollmer, C.; Oberauer, A.; Ott, Dr. T.; Paul, J.;  
 Sigl, Dipl.-Ing. (FH) R.; Steinle, Dr. H. (until 31.01.); Wie-  
 precht, Dipl.-Ing. E.; Wiezorrek, Dipl.-Ing. (FH) E.

#### Publication Services and Copy Shop

Hauner, R.

### Library

Bartels, C. (Head)  
 Blank, E.

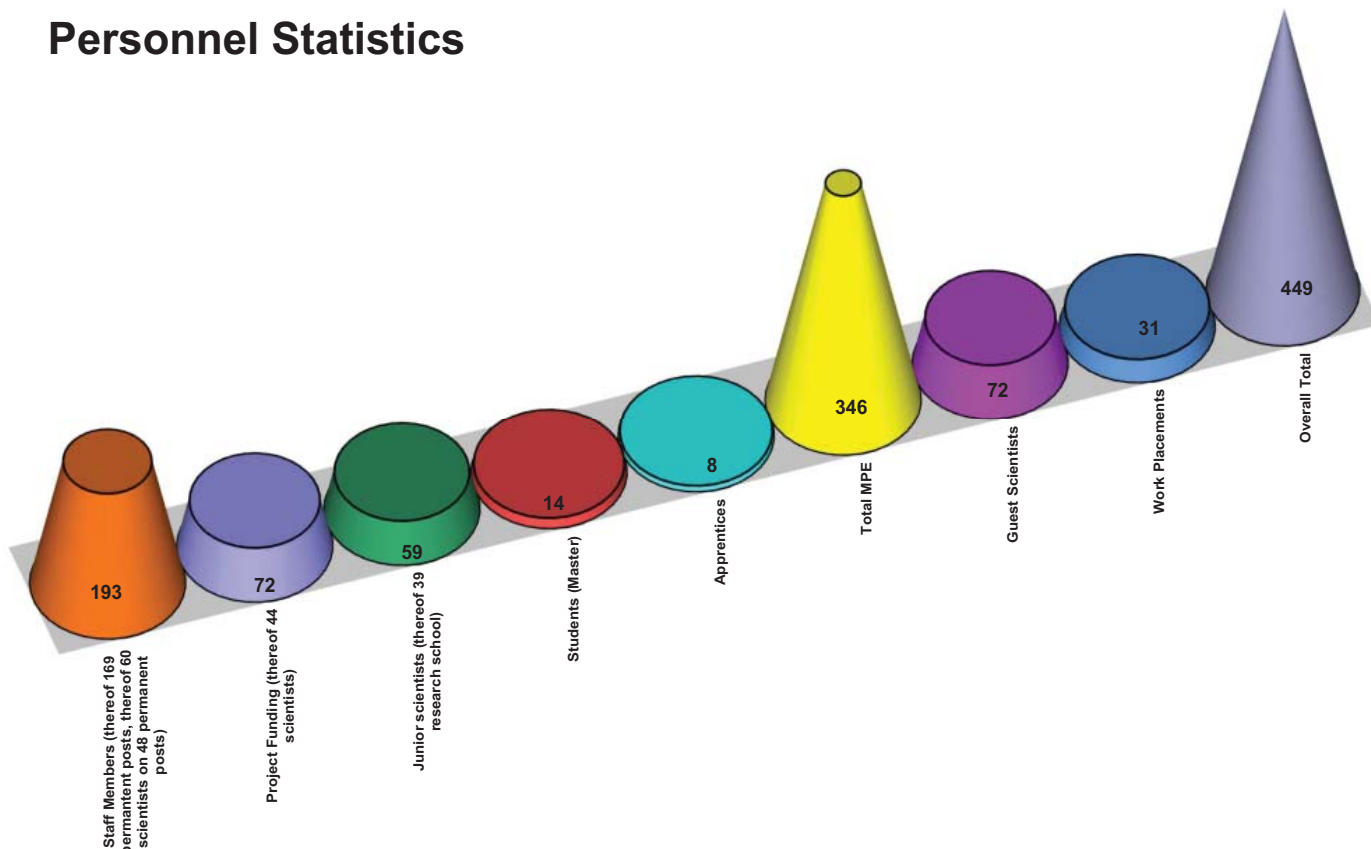
### Administration

Wanger, H. (Head VAD)  
 Secretary: Kliem, V. (until 31.12.); Hesseler, G. (since  
 01.09.)  
 Apold, G.; Arturo, A.; Bauernfeind, M.; Bauer, T.; Belscak,  
 L. (since 01.09.); Cziasto, U.; Eicher, C.; Ertl, M.; Fleisch-  
 mann, S.; Goldbrunner, S.; Grasmann, M; Grohmann,  
 M.; Gschnell, H.-P.; Hausmann, S. (since 01.02.); Hida-  
 si, R. (since 01.09.); Hingerl, P.; Jäkel, T.; Jirsch, Y.; Ka-  
 ring, W.; Keil, M.; Kestler, L.; Krapivina, A. (since 01.12.);  
 Kuhwald, E.; Maier, E. (since 01.04.); Meindl, D.; Nagy,  
 A.; Neun, A. (BR); Paschou, J.; Peischl, M.; Preisler, C.;  
 Rochner, R.; Sandtner, P.; Scheiner, B.; Schmidt, A. (since  
 01.12.); Schwaiger, S.; Seyfarth, B.; Steinle, R.; Stricker,  
 C.; Thies, F.; Thies, L.; Uhland, J.; Vogt, J.P.

### IMPRS

Schubert, V.

## Personnel Statistics



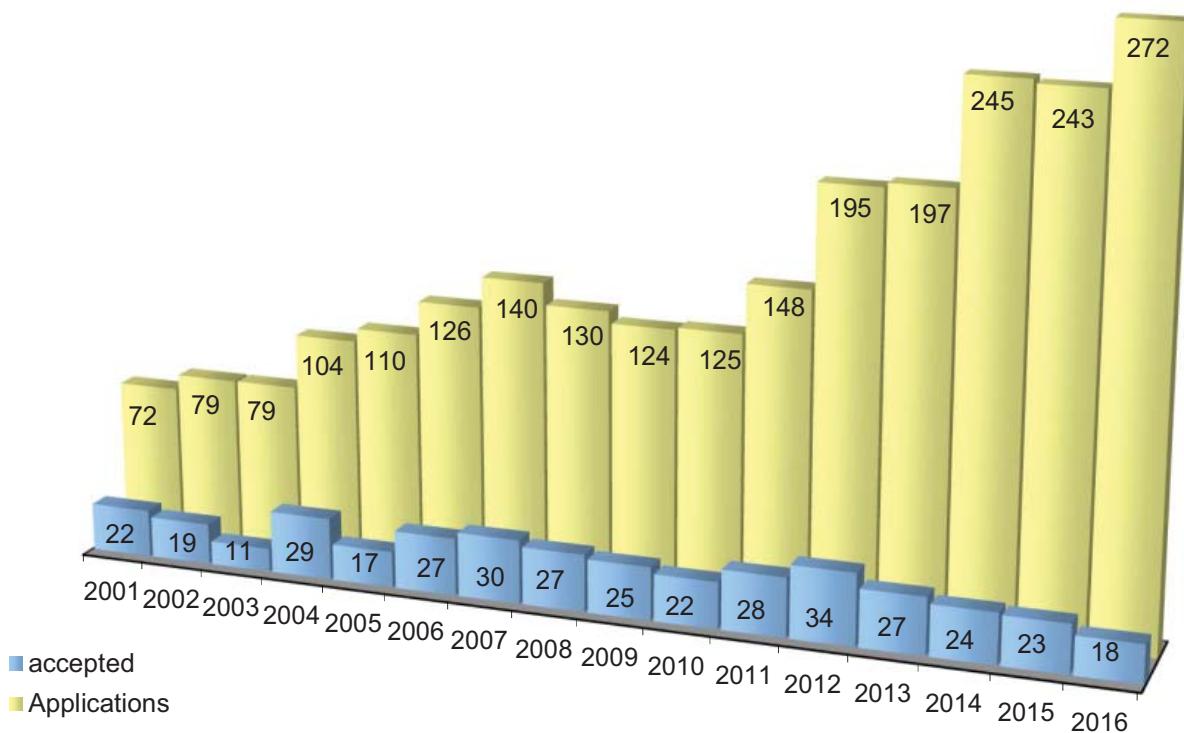
## International Max-Planck Research School (IMPRS) for Astrophysics

The IMPRS for Astrophysics is a graduate school at the Ludwig-Maximilians-University (LMU) Munich. The school is a joint project of the Max-Planck Institutes MPE and MPA (Max-Planck-Institut für Astrophysik) as well as the Observatory of LMU Munich and the European Southern Observatory ESO. In the academic year 2016, a total of 95 students took part in the program, thereof 31 at the MPE. In 2016, 272 students from 48 countries applied for

the year 2017. 18 students were accepted, thereof 9 at the MPE (up to May 2017).

As a rule, several PhD students from local universities join the program during the year, so that on average 26 PhD students take part per year.

### IMPRS Applications since 2001



Summary of annual applications for the IMPRS program in Garching. Since its start in 2001 a total of 2389 students applied, 383 were accepted.

### Public Relations Work

In 2016 the MPE engaged in following PR activities: 25 public talks by MPE scientists, 12 press releases on scientific results, 7 general news (scientific prizes, awards), 22 guided tours through the institute (mainly scientifically oriented school classes). 13 high-school students (1 - 2 weeks) and 8 university students (4 - 8 weeks) were supervised during their internship at the MPE.

40 girls were introduced to the MPE and its science via the federal initiative "Girl's Day" in March. More information about the PR work at the MPE can be found at:

<http://www.mpe.mpg.de/2557/public-outreach>

# Project-Groups

(Project Manager underlined)

## Infrared- and Submillimeter-Astronomy

Deputy to the Director of the Group:  
Lutz, Tacconi.

### ERIS

Ric Davies, Eisenhauer, Feuchtgruber, George, Gräff, Hartl, Plattner, Schubert, Sturm.

### GRAVITY

Deen, Eisenhauer, Genzel, Gillessen, Haug, Haußmann, Kellner, Lippa, Ott, Pfuhl, Sturm, Waisberg, Wieprecht, Wiezorreck, Yazici, Zanker-Smith.

### Herschel-PACS

Berta, Contursi, Doublier Pritchard, de Jong, Feuchtgruber, Gracia Carpio, Kleiser, Lutz, T. Müller, Osterhage, Sturm.

### LBT Argos

Barl, Ric Davies, M. Deysenroth, Gemperlein, Orban de Xivry, Rabien, Rosensteiner, Ziegleder.

### LBT LUCI

Contursi, Eibl, Eisenhauer, Gemperlein, Honsberg, Rabien, E. Wuyts.

### MICADO

Ric Davies, Hartl, Schubert, Sturm.

### Galactic Center

Dexter, Eisenhauer, Genzel, George, Gillessen, Habibi, Ott, Pfuhl, Plewa, Sicheneder, von Fellenberg, Waisberg.

### Galactic Nuclei

Burtscher, Contursi, Ric Davies, Genzel, Herrera-Camus, Janssen, Lin, Lutz, Orban de Xivry, Schruha, Shimizu, Sturm, Tacconi.

### Galaxies at High Redshift

Belli, Berta, Rebecca Davies, Förster Schreiber, Genzel, Lang, Lutz, Nelson, Sturm, Tacconi, Tadaki, Übler, Wisniewski, E. Wuyts.

### Starformation

Bisbas, Cazzoletti, Facchini, Schruha, van Dishoeck.

### Theory

Dexter, Bauböck, Jimenes Rosales, Sicheneder, Waisberg.

## High-Energy Astrophysics

ATHENA/Spiegel:  
Budau, Burwitz, Hartner, Menz, Passlack.

ATHENA/WFI:  
Andritschke, Bähr, Behrens, Bergbauer, Bianchi, Bornemann, Eder, Emberger, Eraerds, Fürmetz, Haberl, Hälker, Hauser, Kink, Koch, Lederhuber, Mican, Meidinger, Nandra, S. Ott, Pietschner, Plattner, A. Rau, Schubert, S. Müller, Müller-Seidlit, Reiffers, Strecker, Treberspurg, Tüchler.

CAST  
Bräuninger.

Chandra  
Burwitz, Predehl.

eROSITA  
Andritschke, Boller, Bornemann, Bräuninger, Brunner, Budau, Burghardt, Burwitz, Clerc, Coutinho, Dennerl, Dittrich, Eder, Eibl, Emberger, Eraerds, F. Huber, Freyberg, Friedrich, Fürmetz, Gaida, Georgakakis, Goldbrunner, Grossberger, Haberl, Hälker, Hartmann, Hartner, Hengmith, v. Kienlin, Kink, Krämer, Meidinger, Merloni, Mican, S. Müller, Nandra, Oberauer, Pfeffermann, Pietschner, Predehl, Rohé, Rupprecht, Schuppe, Schreib, Schrey, Soller, Yaroshenko.

ROSAT  
Boller, Freyberg, Haberl, Trümper.

Swift  
Greiner, Schady.

XMM-Newton  
Boller, Dennerl, Freyberg, Haberl, Meidinger, Trümper.

Fermi  
Collmar, Diehl, Greiner, v. Kienlin, A. Rau.

GROND  
van Eerten, Graham, Greiner, A. Rau, Schady, Schrey.

INTEGRAL  
Diehl, Siegert, v. Kienlin, X.-L. Zhang.

MXT-SVOM  
Burwitz, Meidinger, Nandra, A. Rau.

OPTIMA  
A. Rau, Schrey, Steinle.

4MOST  
Boller, Dwelly, Merloni.

Active Galaxies

Boller, Georgakakis, Merloni, Nandra, Salvato.

Clusters of Galaxies

Clerc, Sanders.

**Optical and Interpretative Astronomy**

DES

Bender, Saglia.

EUCLID

Bender, Fabricius, Galametz, Garcia Carpio, Gillhuber, Goldenbogen, Grupp, Hartung, Kellermann, Koppenhöfer, Penka, Piemonte, Raison, Saglia, Wetzstein, Wimmer.

KMOS

Beifiori, Bender, Fossati, Galametz, Mendel, Saglia, Wilman.

MICADO

Bender, Fabricius, Saglia, Thomas.

PanSTARRS

Bender, Farrow, Hopp, Saglia.

Galaxy Dynamics

Bender, Gerhard, Mazzalay, Saglia, Thomas, Wegg.

Large Scale Structure

Bender, Farrow, Montesano, Saglia, Sanchez.

Stellar Populations and Galaxy Formation

Bender, Hopp, Saglia.

**Center for astrochemical Studies**

Observations

Alves, Feng, Goto, P. Maier, T. Müller, Pineda, Riaz, Schmiedeke.

Theory

Choudhury, Hocuk, Ivlev, Sipliä, Szűcs, Thi, Vasyunin, Zhao.

Laboratory

Bizzocchi, Endres, Giuliano, Laas, Lattanzi, Spezzano.

# Teaching

## IMPRS on Astrophysics (2016), Garching

### Becker

Doktorandenseminar über aktuelle Themen aus der Astrophysik (WS 15/16, SS 16, WS 16/17)

### Genzel

IMPRS Advanced Course: "Galaxy evolution from the galaxies' perspective: from interstellar gas, to stars, to black holes and back" (WS 15/16)

### Gerhard

Galactic Dynamics and Galaxy Evolution (WS 15/16)

## LMU München

### Becker

Endstadien der Sternentwicklung (WS 15/16)

### Bender

Astronomisches Kolloquium (WS 15/16, SS 16, WS 16/17)

Astrophysikalisches Grundpraktikum (WS 15/16, SS 16, WS 16/17)

Forschungsprojekt Masterarbeit, Anleitung zum wissenschaftlichen Arbeiten (WS 15/16, SS 16, WS 16/17)

Astrophysikalisches Hauptseminar theoretisch und numerisch orientiert, "Tools in modern astrophysics" (WS 15/16, SS 16, WS 16/17)

Begleitendes Kolloquium zum Astrophysikalisches Hauptseminar theoretisch und numerisch orientiert (WS 15/16, SS 16, WS 16/17)

Astrophysikalisches Hauptseminar experimentell und beobachtungsorientiert, "Tools in modern astrophysics" (WS 15/16, SS 16, WS 16/17)

Begleitendes Kolloquium zum Astrophysikalisches Hauptseminar experimentell und beobachtungsorientiert (WS 15/16, SS 16, WS 16/17)

Projektseminar mit begleitendem Kolloquium "Extragalactic group seminar" (WS 15/16, SS 16, WS 16/17)

Projektseminar mit begleitendem Kolloquium "Gravitational Lensing" (WS 15/16, SS 16, WS 16/17)

Projektseminar mit begleitenden Kolloquium "Galaxies" (WS 15/16, SS 16, WS 16/17)

Projektseminar mit begleitenden Kolloquium aus dem Bereich experimenteller Arbeiten und Instrumentenentwicklung in der Astronomie (WS 15/16, SS 16, WS 16/17)

Projektseminar mit begleitenden Kolloquium, vorbereitendes Kolloquium zur Masterarbeit mit Tutorium, Kolloquium und Tutorium aus dem Bereich experimenteller Arbeiten, Anleitung zum Wissenschaftlichen Arbeiten (WS 15/16, SS 16, WS 16/17)

### Gerhard

Projektseminar mit begleitendem Kolloquium "Stellar Dynamics" (SS 16, WS 16/17)

Galactic Dynamics and Galaxy Evolution (WS 15/16)

## Technische Universität München

### Diehl

Astrophysics Seminar "Nuclei in the COSMOS" (WS 15/16, SS 16, WS 16/17)

### Eisenhauer

Einführung in die Astrophysik (WS 15/16, 16/17)

High Angular Resolution Astronomy: Telescopes, Adaptive Optics, Interferometry, and more (SS 16)

## Astronomical Institute of the Charles University, Prag, Tschechien

### Dexter

The Galactic Center (WS 15/16)

## Goethe-Universität Frankfurt

### Boller

The Physics of the Solar System (WS 15/16)

Radiation and Matter (WS 15/16)

Strahlung und Materie; Astronomische Koordinatensysteme (WS 15/16)

## University of Sao Paolo

### Diehl

Nuclear Astrophysics (WS 15/16)

## University of Tokyo

### Diehl

Nuclear Astrophysics (SS 16)

## Organisation of Seminars / Conferences

Astrochemistry with ALMA Cycle 4, Bordeaux, France, 12.01.-13.01.2016, Organisation: P. Caselli, A. Dutrey, D. Semenov, V. Wakelam.

Athena Wide Field Imager Proto-Consortium Meeting, Garching, 02.03.-04.03.2016, Organisation: A. Rau, N. Meidinger, M. Plattner, K. Nandra.

Small Bodies Near and Far, IAA, Granada, Spain, 13.04.-15.04.2016, Organisation: T.G. Müller, R. Duffard.

Follow-up of Wide-area X-ray Surveys, Ringberg Castle, 25.04.-27.04.2016, Organisation: A. Merloni, A. Finoguenov, M. Salvato.

The Cold Universe, Santa Barbara, CA, USA, 25.04.-15.07.2016, Organisation: P. Caselli, A. Ferrara, M. Ouchi, R. Schneider, J.C. Tan.

Unravelling Galaxies: Where Do the Stars Form? Frauenthemsee, Germany, 13.06.-15.06.2016, Organisation: D.J. Wilman, M. Fossati, G. Rudnick.

32nd Annual Conference of the IAP - Cosmic Dawn of the Galaxy Formation: Linking observations and theory with new-generation spectral models over cosmic time, Paris, France, 20.06.-24.06.2016, Organisation: A. Bressan, J. Brinchmann, V. Bromm, S. Charlot, F. Combes, G. Ferland, N.M. Förster Schreiber, C. Leitherer, R. Maiolino, M. Pettini, A. Shapley, R. Somerville, D.P. Stark, M. Volonteri.

Active Galactic Nuclei: What's in a Name? Garching, 27.06.-01.07.2016, Organisation: P. Padovani, E. Hatziminaoglou, V. Mainieri, M. Salvato.

Discs in Galaxies, 2016 Munich Joint Conference, Garching, Germany, 11.07.-15.07.2016, Organisation: A. Burkert, F. Combes, M. Dickinson, R. Ellis, B. Elmegreen, E. Emsellem, A. Helmi, L. Hernquist, G. Kauffmann, H.W. Rix, L. Tacconi.

Crossing the Rubicon: The Fate of Gas Flows in Galaxies, Santacangelo di Romagna, Italy, 05.09.-09.09.2016, Organisation: M. Brusa, F. Fraternali, J. Binnery, G. Chartas, J.X. Prochaska, A. Saintonge, R. Sancisi, D. Sijacki, L. Tacconi, E. Treister, and J. van Gorkom.

ESO-Athen Synergy Workshop, Garching b. München, 14.09.-16.09.2016, Organisation: P. Padovani, F. Combes, M. Díaz-Trigo, S. Etori, E. Hatziminaoglou, P. Jonker, M. Salvato, S. Viti.

Interstellar Shocks: Models, Observations, and Experiments, Torun, Poland, 14.09.-16.09.2016, Organisation: S. Cabrit, P. Caselli, A. Ciardi, E. van Dishoeck, H. Fraser, M. Gerin, V. Guillet, A. Gusdorf, M. Hanasz, A. Karska, M. Kaufman, L. Kristensen, A. Marcowith, D. Neufeld, L. Podio.

Workshop on Laboratory Astrophysics: Interstellar Gas, Dust and Ice, Ringberg Castle, Germany, 18.09.-20.09.2016, Organisation: P. Caselli, T. Giesen, C. Jaeger, H. Kreckel, H. Mutschke, S. Schlemmer, R. Rouille.

The Changing Face of Galaxies: Uncovering Transformational Physics, Hobart, Tasmania, Australia, 19.09.-23.09.2016, Organisation: S. Croom, J. Bland-Hawthorn, K. Bundy, S. Ellison, N.M. Förster Schreiber, R. Gonzalez-Delgado, M. Haynes, P. Hopkins, L. Kewley, T. Naab, C. Power, A. Saintonge, S. Shabala, R. Somerville.

Fractionation of Isotopologues in Space: From the Solar System to Galaxies, Florence, Italy, 10.10.-13.10.2016, Organisation: M. Bertran, F. Fontani, E. Bergin, D. Bockelée-Morvan, P. Caselli, C. Codella, S. Martin, T. Pillai, S. Schlemmer, L. Testi.

In Situ View of Galaxy Formation, Schloss Ringberg, Ringberg, Germany, 30.10.-05.11.2016, Organisation: N.M. Förster Schreiber, L.J. Tacconi, R. Bower, F. Combes, R. Ellis, R. Genzel, L. Kewley, T. Kodama, S. Lilly, D. Lutz, T. Naab, A. Renzini, R. Teyssier.

Nuclear Astrophysics in Germany, Darmstadt, Darmstadtium Convention Center, 15.11.-16.11.2016, Organisation: R. Diehl, R. Reifarth, C. Chiappini, N. Christlieb, G. Martinez Pinedo.

Small Bodies Near and Far, Nördlingen, Germany, 22.11.2016, Organisation: T.G. Müller, S. Hölzl.

The Hydride Toolbox, Paris, 12.12.2016, Organisation: Y. Aikawa, E. Bergin, J. Black, P. Caselli, M. Gerin, J. Goicoechea, E. Gonzalez-Alfonso, D. Li, X. Michaut, D. Neufeld, K. Öberg, E. van Dishoeck.

# Publications

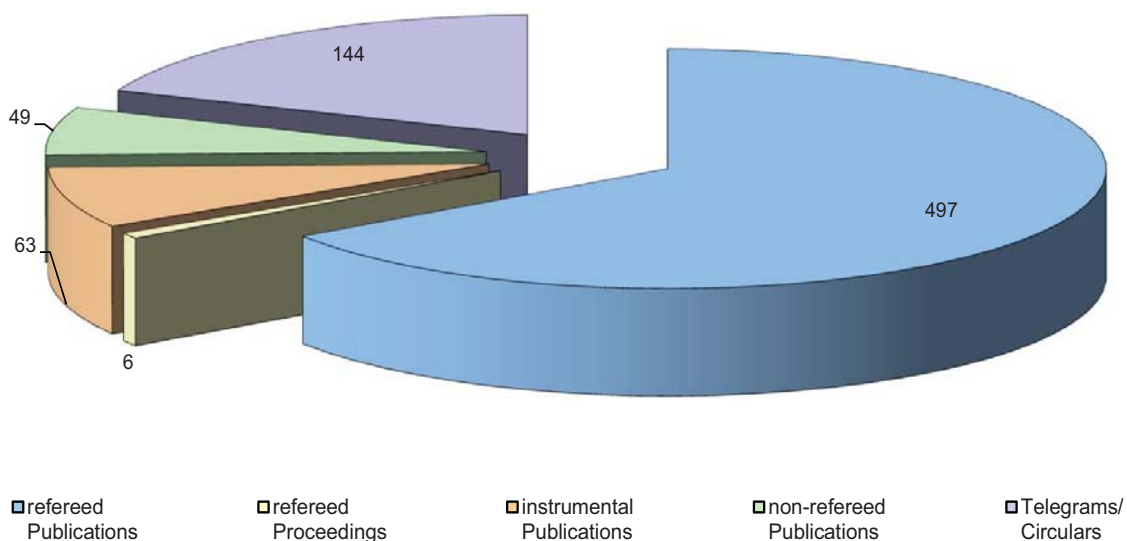
Here we present a tabular and graphical summary of our publication activities in 2016. The publications are counted by science group and publication type. The individual publications are listed consecutively

## Summary of MPE Publications in 2016

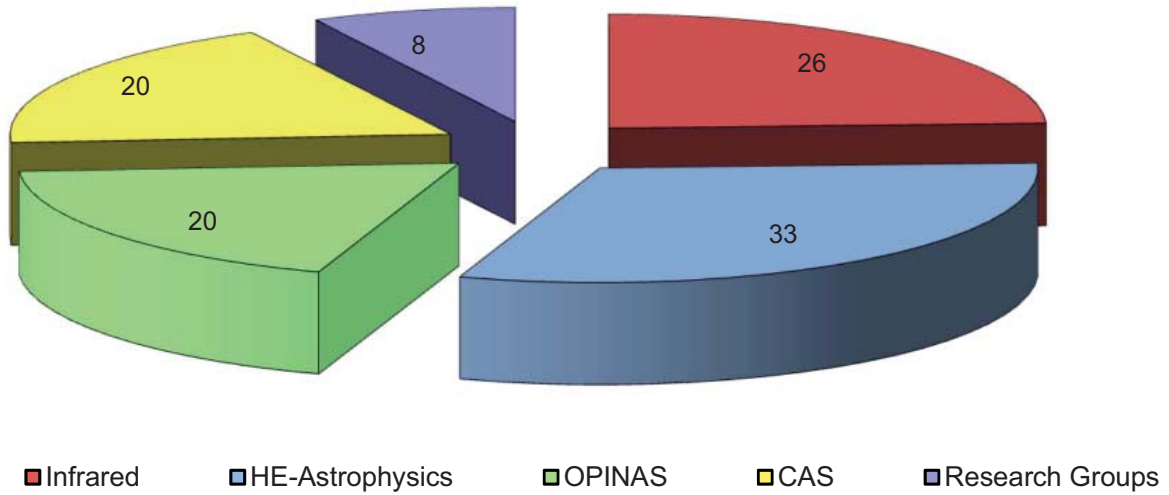
Science Group	refereed Publications	refereed Proceedings	Instrument. Publications	non-refereed Publications	Telegrams/Circulars	Talks	Poster
IR	26 (108)	0 (00)	4 (20)	2 (14)	4 (16)	81 (113)	9
HE Astrophysics	33 (172)	0 (02)	10 (27)	6 (14)	53 (117)	60 (105)	7
OPINAS	20 (105)	0 (04)	8 (16)	3 (08)	0 (04)	10 (20)	3
CAS	20 (79)	0 (00)	0 (00)	3 (11)	3 (06)	32 (73)	9
Res. Grp	8 (33)	0 (00)	0 (00)	0 (02)	0 (01)	2 (02)	1
<b>Total</b>	<b>107 (497)</b>	<b>0 (06)</b>	<b>22 (63)</b>	<b>14 (49)</b>	<b>60 (144)</b>	<b>185 (313)</b>	<b>29</b>

The black entries give the number of publications with a first author from MPE or invited talks, respectively. The red entries in brackets show the total number of publications with MPE contributions or talks (including the black numbers). Publications with contributions from more than one research group are counted for the group of the leading author. Posters are counted only if the first author is a MPE member.

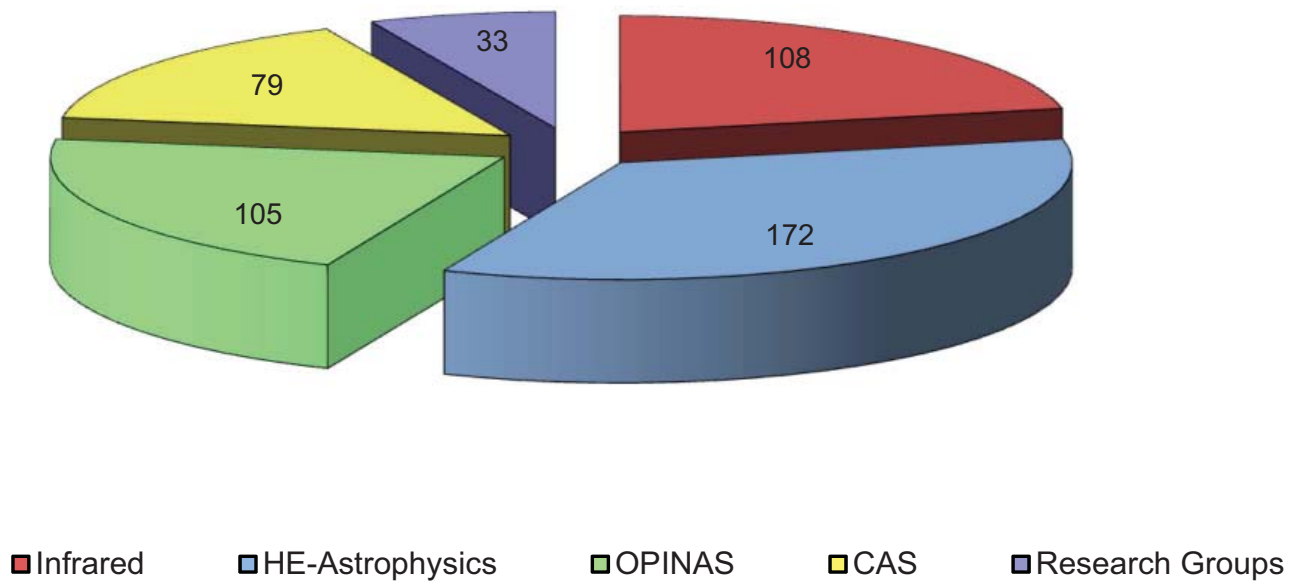
## MPE Publications 2016 (by Type)



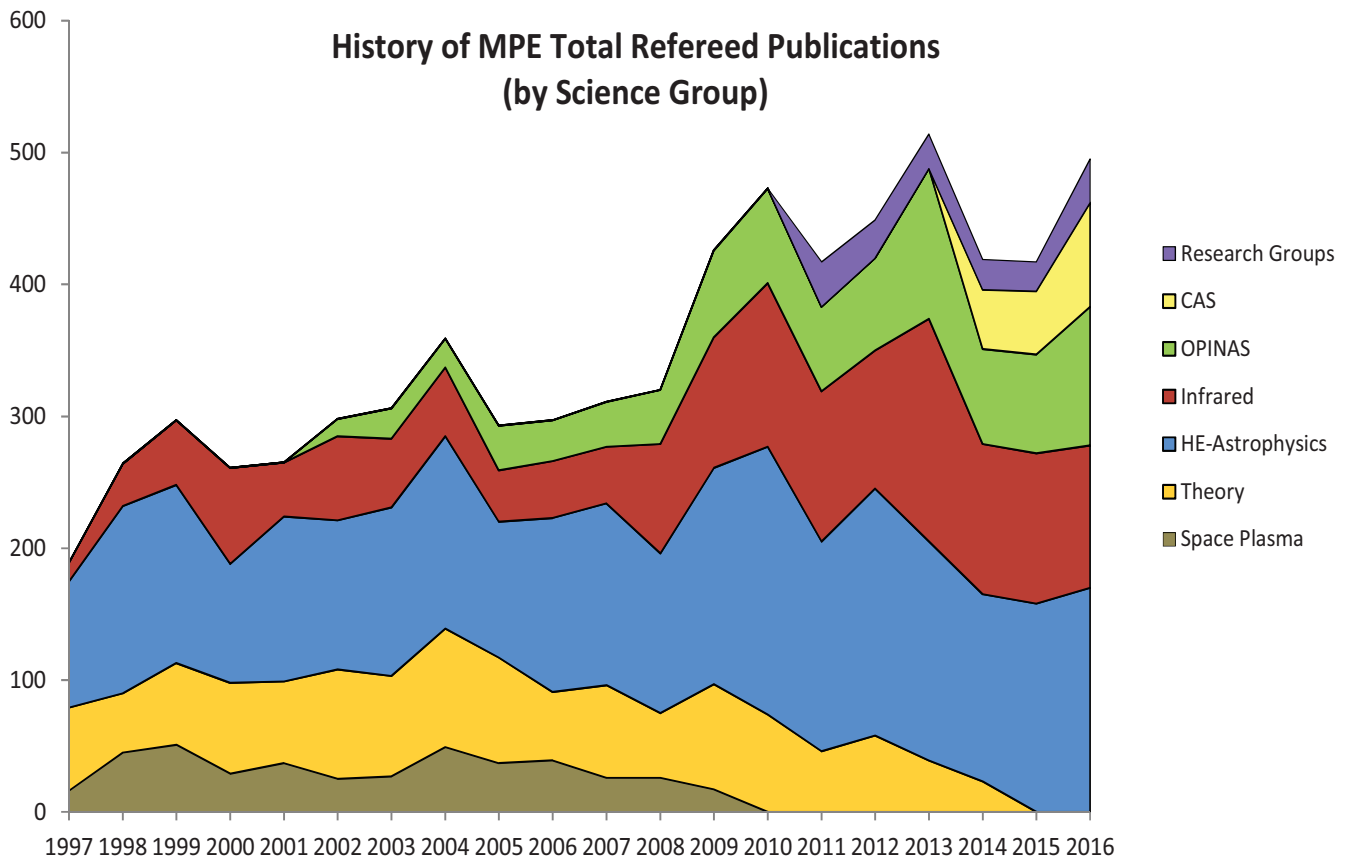
### Refereed Publications with MPE first author in 2016 (by Science Group)



### Total refereed MPE Publications in 2016 (by Science Group)







## Refereed Publications

- Abbott, P.B., R. Abbott, T.D. Abbott, ..., J. Greiner, A. von Kienlin, K. Toelge, H.-F. Yu, ..., A. Rau, A. von Kienlin, X. Zhang, ..., T.-W. Chen, et al.: Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914. *Ap. J.* 826, L13 (2016).
- Abbott, B.P., R. Abbott, T.D. Abbott, ..., J. Greiner, A. von Kienlin, K. Toelge, H.-F. Yu, ..., A. Rau, A. von Kienlin, X. Zhang, ..., T.-W. Chen, et al.: "Supplement: "Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914" (ApJL, 826, L13)". *Ap. J. Supp. Ser.* 225, 26 (2016).
- Abbott, T., F.B. Abdalla, S. Allam, ..., J. Weller, et al.: Cosmology from cosmic shear with Dark Energy Survey Science Verification data. *Physical Review D* 94, 022001 (2016).
- Acero, F., M. Ackermann, M. Ajello, ..., A.W. Strong, et al.: Development of the Model of Galactic Interstellar Emission for Standard Point-source Analysis of Fermi Large Area Telescope Data. *Ap. J. Supp. Ser.* 223, 26 (2016).
- Acero, F., M. Ackermann, M. Ajello, ..., A.W. Strong, et al.: The First Fermi LAT Supernova Remnant Catalog. *Ap. J. Supp. Ser.* 224, 8 (2016).
- Achitouv, I., M. Baldi, E. Puchwein and J. Weller: Imprint of  $f(R)$  gravity on nonlinear structure formation. *Physical Review D*, 93(10): 103522, pp. 1-16 (2016).
- Ackermann, M., M. Ajello, B. Anderson, ..., A. von Kienlin, et al.: Fermi LAT Stacking Analysis of Swift Localized GRBs. *Ap. J.* 822, 68 (2016).
- Ackermann, M., M. Ajello, H. An, ..., A. Rau, ..., P. Schady, et al.: Contemporaneous Broadband Observations of Three High-redshift BL LAC Objects. *Ap. J.* 820, 72 (2016).
- Adami, C., E. Pompei, T. Sadibekova, N. Clerc, A. Iovino, S.L. McGee, L. Guennou, M. Birkinshaw, C. Horellou, S. Maurogordato, F. Pacaud, M. Pierre, B. Poggianti and J. Willis: The XXL Survey. VIII. MUSE characterisation of intracluster light in a  $z \sim 0.53$  cluster of galaxies. *Astron. Astrophys.* 592, A7 (2016).
- Agarwal, B., B. Smith, S. Glover, P. Natarajan and S. Khochfar: New constraints on direct collapse black hole formation in the early Universe. *Mon. Not. R. Astron. Soc.*, 459(4), 4209-4217 (2016).
- Ahoranta, J., A. Finoguenov, C. Pinto, J. Sanders, J. Kaastra, J. de Plaa and A. Fabian: Observations of asymmetric velocity fields and gas cooling in the NGC 4636 galaxy group X-ray halo. *Astron. Astrophys.* 592, A145 (2016).
- Ajello, M., G. Ghisellini, V.S. Paliya, D. Kocevski, G. Tagliaferri, G. Madejski, A. Rau, P. Schady, J. Greiner, F. Massaro, M. Balokovic, R. Bühler, M. Giomi, L. Marcotulli, F. D'Ammando, D. Stern, S.E. Boggs, F.E. Christensen, W.W. Craig, C.J. Hailey, F.A. Harrison and W.W. Zhang: NuSTAR, Swift, and GROND Observations of the Flaring MeV Blazar PMN J0641-0320. *Ap. J.* 826, 76 (2016).
- Alberts, S., A. Pope, M. Brodwin, S.M. Chung, R. Cybulski, A. Dey, P.R.M. Eisenhardt, A. Galametz, A.H. Gonzalez, B.T. Jannuzi, S.A. Stanford, G.F. Snyder, D. Stern and G.R. Zeimann: Star Formation and AGN Activity in Galaxy Clusters from  $z=1-2$ : a Multi-Wavelength Analysis Featuring Herschel/PACS. *Ap. J.* 825, 72 (2016).
- Allen, R.C., J.-C. Zhang, L.M. Kistler, H.E. Spence, R.-L. Lin, B. Klecker, M.W. Dunlop, M. André and V.K. Jordanova: A statistical study of EMIC waves observed by Cluster: 2. Associated plasma conditions. *J. Geophys. Res. (Space Phys.)* 121, 6458-6479 (2016).
- Allevato, V., F. Civano, A. Finoguenov, S. Marchesi, F. Shankar, G. Zamorani, G. Hasinger, M. Salvato, T. Miyaji, R. Gilli, N. Cappelluti, M. Brusa, H. Suh, G. Lanzuisi, B. Trakhtenbrot, R. Griffiths, C. Vignali, K. Schawinski and A. Karim: The Chandra COSMOS Legacy Survey: Clustering of X-Ray-selected AGNs at  $2.9 \leq z \leq 5.5$  Using Photometric Redshift Probability Distribution Functions. *Ap. J.* 832, 70 (2016).
- Álvarez-Márquez, J., D. Burgarella, S. Heinis, V. Buat, B. LoFaro, M. Béthermin, C.E. López-Fortín, A. Cooray, D. Farrah, P. Hurley, E. Ibar, O. Ilbert, A.M. Koekemoer, B.C. Lemaux, I. Pérez-Fournon, G. Rodighiero, M. Salvato, D. Scott, Y. Taniguchi, J.D. Vieira and L. Wang: Dust properties of Lyman-break galaxies at  $z \sim 3$ . *Astron. Astrophys.* 587, A122 (2016).
- Aniyan, S., K.C. Freeman, O.E. Gerhard, M. Arnaboldi and C. Flynn: The influence of a kinematically cold young component on disc-halo decompositions in spiral galaxies: insights from solar neighbourhood K-giants. *Mon. Not. R. Astron. Soc.* 456, 1484-1494 (2016).
- Annis, J., M. Soares-Santos, E. Berger, ..., J.J. Mohr, ..., J. Weller, et al.: A Dark Energy Camera Search for Missing Supergiants in the LMC after the Advanced LIGO Gravitational-wave Event GW150914. *Ap. J. Lett.* 823, L34 (2016).
- Ansdell, M., J.P. Williams, N. van der Marel, J.M. Carpenter, G. Guidi, M. Hogerheijde, G.S. Mathews, C.F. Manara, A. Miotello, A. Natta, I. Oliveira, M. Tazzari, L. Testi, E.F. van Dishoeck and S.E. van Terwisga: ALMA Survey of Lupus Protoplanetary Disks. I. Dust and Gas Masses. *Ap. J.* 828, 46 (2016).
- Antonellini, S., I. Kamp, F. Lahuis, P. Voitke, W.-F. Thi, R. Meijerink, G. Aresu, M. Spaans, M. Güdel and A. Liebhart: Mid-IR spectra of pre-main sequence Herbig stars: An explanation for the non-detections of water lines. *Astron. Astrophys.* 585, A61 (2016).
- Balbinot, E., B. Yanny, T.S. Li, ..., D. Gruen, ... and The DES Collaboration. The Phoenix stream: a cold stream in the southern hemisphere. *Ap. J.* 820(1): 58, pp. 1-8 (2016).
- Bañados, E., B.P. Venemans, R. Decarli, E.P. Farina, C. Mazzucchelli, F. Walter, X. Fan, D. Stern, E. Schlafly, K.C.

- Chambers, H.-W. Rix, L. Jiang, I. McGreer, R. Simcoe, F. Wang, J. Yang, E. Morganson, G. De Rosa, J. Greiner, M. Balokovi, W.S. Burgett, T. Cooper, P.W. Draper, H. Flewelling, K.W. Hodapp, H.D. Jun, N. Kaiser, R.-P. Kudritzki, E.A. Magnier, N. Metcalfe, D. Miller, J.-T. Schindler, J.L. Tonry, R.J. Wainscoat, C. Waters and Q. Yang: The Pan-STARRS1 Distant  $z > 5.6$  Quasar Survey: More than 100 Quasars within the First Gyr of the Universe. *Ap. J. Supp. Ser.* 227, 11 (2016).
- Bacmann, A., F. Daniel, P. Caselli, C. Ceccarelli, D. Lis, C. Vastel, F. Dumouchel, F. Lique and E. Caux: Stratified NH and ND emission in the prestellar core 16293E in L1689N. *Astron. Astrophys.* 587, A26 (2016).
- Baczko, A.-K., R. Schulz, M. Kadler, E. Ros, M. Perucho, T.P. Krichbaum, M. Böck, M. Bremer, C. Grossberger, M. Lindqvist, A.P. Lobanov, K. Mannheim, I. Martí-Vidal, C. Müller, J. Wilms and J.A. Zensus: A highly magnetized twin-jet base pinpoints a supermassive black hole. *Astron. Astrophys.* 593, A47 (2016).
- Balestra, I., A. Mercurio, B. Sartoris, M. Girardi, C. Grillo, M. Nonino, P. Rosati, A. Biviano, S. Etori, W. Forman, C. Jones, A. Koekemoer, E. Medezinski, J. Merten, G.A. Ogorean, P. Tozzi, K. Umetsu, E. Vanzella, R.J. van Weeren, A. Zitrin, M. Annunziatella, G.B. Caminha, T. Broadhurst, D. Coe, M. Donahue, A. Fritz, B. Frye, D. Kelson, M. Lombardi, C. Maier, M. Meneghetti, A. Monna, M. Postman, M. Scodreggio, S. Seitz and B. Ziegler: CLASH-VLT: Dissecting the Frontier Fields Galaxy Cluster MACS J0416.1-2403 with  $\sim 800$  Spectra of Member Galaxies. *Ap. J. Supp. Ser.* 224, 33 (2016).
- Ballone, A., M. Schartmann, A. Burkert, S. Gillessen, P.M. Plewa, R. Genzel, O. Pfuhl, F. Eisenhauer, T. Ott, E.M. George and M. Habibi: The G2+G2t Complex as a Fast and Massive Outflow?. *Ap. J. Lett.* 819, L28 (2016).
- Balogh, M.L., S.L. McGee, A. Mok, A. Muzzin, R.F.J. van der Burg, R.G. Bower, A. Finoguenov, H. Hoekstra, C. Lidman, J.S. Mulchaey, A. Noble, L.C. Parker, M. Tanaka, D.J. Wilman, T. Webb, G. Wilson and H.K.C. Yee: Evidence for a change in the dominant satellite galaxy quenching mechanism at  $z = 1$ . *Mon. Not. R. Astron. Soc.* 456, 4364-4376 (2016).
- Barnes, A.T., S. Kong, J.C. Tan, J.D. Henshaw, P. Caselli, I. Jiménez-Serra and F. Fontani: Widespread deuteration across the IRDC G035.39-00.33. *Mon. Not. R. Astron. Soc.* 458, 1990-1998 (2016).
- Baronchelli, I., C. Scarlata, G. Rodighiero, A. Franceschini, P.L. Capak, S. Mei, M. Vaccari, L. Marchetti, P. Hibon, C. Sedgwick, C. Pearson, S. Serjeant, K. Menéndez-Delmestre, M. Salvato, M. Malkan, H.I. Teplitz, M. Hayes, J. Colbert, C. Papovich, M. Devlin, A. Kovacs, K.S. Scott, J. Surace, J.D. Kirkpatrick, H. Atek, T. Urrutia, N.Z. Scoville and T.T. Takeuchi: The Spitzer-IRAC/MIPS Extragalactic Survey (SIMES) in the South Ecliptic Pole Field. *Ap. J. Supp. Ser.* 223, 1 (2016).
- Barreira, A., A.G. Sánchez and F. Schmidt: Validating estimates of the growth rate of structure with modified gravity simulations. *Physical Review D* 94, 084022 (2016).
- Bartnick, J., A. Kaiser, H. Löwen and A.V. Ivlev: Emerging activity in bilayered dispersions with wake-mediated interactions. *Journal of Chemical Physics* 144, 224901 (2016).
- Bartnick, J., M. Heinen, A.V. Ivlev and H. Löwen: Structural correlations in diffusiophoretic colloidal mixtures with nonreciprocal interactions. *Journal of Physics Condensed Matter* 28, 025102 (2016).
- Baxter, E., J. Clampitt, T. Giannantonio, ..., J.J. Mohr, et al.: Joint measurement of lensing-galaxy correlations using SPT and DES SV data. *Mon. Not. R. Astron. Soc.* 461, 4099-4114 (2016).
- Bayliss, M.B., J. Ruel, C.W. Stubbs, ..., J.J. Mohr, et al.: SPT-GMOS: A Gemini/GMOS-South Spectroscopic Survey of Galaxy Clusters in the SPT-SZ Survey. *Ap. J. Supp. Ser.* 227, 3 (2016).
- Beck, M.C., A.M. Beck, R. Beck, K. Dolag, A.W. Strong and P. Nielaba: New constraints on modelling the random magnetic field of the MW. *J. of Cosmology and Astroparticle Phys.* 5, 056 (2016).
- Beck, A. M., G. Murante, A. Arth, R.-S. Remus, A.F. Teklu, J.M.F. Donnert, S. Planelles, M.C. Beck, P. Förster, M. Imgrund, K. Dolag and S. Borgani: An improved SPH scheme for cosmological simulations. *Mon. Not. R. Astron. Soc.*, 455(2), 2110-2130 (2016).
- Becker, M.R., M.A. Troxel, N. MacCrann, ..., J.J. Mohr, et al.: Cosmic shear measurements with Dark Energy Survey Science Verification data. *Physical Review D* 94, 022002 (2016).
- Behrendt, M., A. Burkert and M. Schartmann: Clusters of Small Clumps Can Explain the Peculiar Properties of Giant Clumps in High-redshift Galaxies. *Ap. J. Lett.* 819, L2 (2016).
- Bel, J., E. Branchini, C.D. Porto, ..., S. Phleps, et al.: The VIMOS Public Extragalactic Redshift Survey (VIPERS) - On the recovery of the count-in-cell probability distribution function. *Astron. Astrophys.* 588: A51 (2016).
- Benz, A.O., S. Bruderer, E.F. van Dishoeck, M. Melchior, S.F. Wampfler, F. van der Tak, J.R. Goicoechea, N. Indriolo, L.E. Kristensen, D.C. Lis, J.C. Mottram, E.A. Bergin, P. Caselli, F. Herpin, M.R. Hogerheijde, D. Johnstone, R. Liseau, B. Nisini, M. Tafalla, R. Visser and F. Wyrowski: Water in star-forming regions with Herschel (WISH). VI. Constraints on UV and X-ray irradiation from a survey of hydrides in low- to high-mass young stellar objects. *Astron. Astrophys.* 590, A105 (2016).
- Berta, S., D. Lutz, R. Genzel, N.M. Förster Schreiber and L.J. Tacconi: Measures of galaxy dust and gas mass with Herschel photometry and prospects for ALMA. *Astron. Astrophys.* 587, A73 (2016).
- Bharadwaj, V., T.H. Reiprich, J.S. Sanders and G. Schellenberger: Investigating the cores of fossil systems with Chandra. *Astron. Astrophys.* 585, A125 (2016).
- Bigiel, F., A.K. Leroy, M.J. Jiménez-Donaire, J. Pety, A. Usero, D. Cormier, A. Bolatto, S. Garcia-Burillo, D. Colombo, M. González-García, A. Hughes, A.A. Kepley, C. Kramer, K. Sandstrom, E. Schinnerer, A. Schrubba, K. Schuster, N. Tomicic and L. Zschaechner: The EMPIRE Survey: Systematic Variations in the Dense Gas Fraction

- and Star Formation Efficiency from Full-disk Mapping of M51. *Ap. J. Lett.* 822, L26 (2016).
- Bizzocchi, L., L. Dore, C. Degli Esposti and F. Tamassia: First Laboratory Measurement of the  $J = 1 - 0$  Transitions of  $^{36}\text{ArH}^+$  and  $^{38}\text{ArH}^+$ : New, Improved Rest Frequencies for Astronomical Searches. *Ap. J. Lett.* 820, L26 (2016).
- Bjerkeli, P., J.K. Jørgensen, E.A. Bergin, S. Frimann, D. Harsono, S.K. Jacobsen, J.E. Lindberg, M. Persson, N. Sakai, E.F. van Dishoeck, R. Visser and S. Yamamoto: Water around IRAS 15398-3359 observed with ALMA. *Astron. Astrophys.* 595, A39 (2016).
- Bland-Hawthorn, J. and O. Gerhard: The Galaxy in Context: Structural, Kinematic, and Integrated Properties. *Annual Review of Astron. Astrophys.* 54, 529-596 (2016).
- Bluck, A.F.L., J.T. Mendel, S.L. Ellison, D.R. Patton, L. Simard, B.M.B. Henriques, P. Torrey, H. Teimoorinia, J. Moreno and E. Starkenburg: The impact of galactic properties and environment on the quenching of central and satellite galaxies: a comparison between SDSS, Illustris and L-Galaxies. *Mon. Not. R. Astron. Soc.*, 462(3), 2559-2586 (2016).
- Bocquet, S., A. Saro, K. Dolag and J.J. Mohr: Halo mass function: baryon impact, fitting formulae, and implications for cluster cosmology. *Mon. Not. R. Astron. Soc.* 456, 2361-2373 (2016).
- Bonnett, C., M. Troxel, W. Hartley, ..., D. Gruen, ..., and Dark Energy Survey Collaboration: Redshift distributions of galaxies in the Dark Energy Survey Science Verification shear catalogue and implications for weak lensing. *Physical Review D*, 94(4): 042005, pp. 1-26 (2016).
- Boller, T., M.J. Freyberg, J. Trümper, F. Haberl, W. Voges and K. Nandra: Second ROSAT all-sky survey (2RXS) source catalogue. *Astron. Astrophys.* 588, A103 (2016).
- Bongiorno, A., A. Schulze, A. Merloni, G. Zamorani, O. Ilbert, F. La Franca, Y. Peng, E. Piconcelli, V. Mainieri, J.D. Silverman, M. Brusa, F. Fiore, M. Salvato and N. Scoville: AGN host galaxy mass function in COSMOS. Is AGN feedback responsible for the mass-quenching of galaxies? *Astron. Astrophys.* 588, A78 (2016).
- Bordoloi, R., J.R. Rigby, J. Tumlinson, M.B. Bayliss, K. Sharon, M.G. Gladders and E. Wuyts: Spatially resolved galactic wind in lensed galaxy RCGA 032727-132609. *Mon. Not. R. Astron. Soc.* 458, 1891-1908 (2016).
- Boselli, A., J.C. Cuillandre, M. Fossati, S. Boissier, D. Bomans, G. Consolandi, G. Anselmi, L. Cortese, P. Côté, P. Durrell, L. Ferrarese, M. Fumagalli, G. Gavazzi, S. Gwyn, G. Hensler, M. Sun and E. Toloba: Spectacular tails of ionized gas in the Virgo cluster galaxy NGC 4569. *Astron. Astrophys.* 587, A68 (2016).
- Boselli, A., Y. Roehly, M. Fossati, V. Buat, S. Boissier, M. Boquien, D. Burgarella, L. Ciesla, G. Gavazzi and P. Serra: Quenching of the star formation activity in cluster galaxies. *Astron. Astrophys.* 596, A11 (2016).
- Bottacini, E., M. Böttcher, E. Pian and W. Collmar: 3C 279 in Outburst in 2015 June: A Broadband SED Study Based on the INTEGRAL Detection. *Ap. J.* 832, 17 (2016).
- Bozzo, E., P. Pjanka, P. Romano, A. Papitto, C. Ferrigno, S. Motta, A.A. Zdziarski, F. Pintore, T. Di Salvo, L. Burderi, D. Lazzati, G. Ponti and L. Pavan: IGR J17451-3022: A dipping and eclipsing low mass X-ray binary. *Astron. Astrophys.* 589, A42 (2016).
- Brucalassi, A., L. Pasquini, R. Saglia, M.T. Ruiz, P. Bonifacio, I. Leão, B.L. Canto Martins, J.R. de Medeiros, L.R. Bedin, K. Biazzo, C. Melo, C. Lovis and S. Randich: Search for giant planets in M67. III. Excess of hot Jupiters in dense open clusters. *Astron. Astrophys.* 592, L1 (2016).
- Bruce, V.A., J.S. Dunlop, A. Mortlock, D.D. Kocevski, E.J. McGrath and D.J. Rosario: The bulge-disc decomposition of AGN host galaxies. *Mon. Not. R. Astron. Soc.*, 458(3), 2391-2404 (2016).
- Brusa, M., M. Perna, G. Cresci, M. Schramm, I. Delvecchio, G. Lanzuisi, V. Mainieri, M. Mignoli, G. Zamorani, S. Berta, A. Bongiorno, A. Comastri, F. Fiore, D. Kakkad, A. Marconi, D. Rosario, T. Contini and F. Lamareille: A fast ionised wind in a star-forming quasar system at  $z \sim 1.5$  resolved through adaptive optics assisted near-infrared data. *Astron. Astrophys.* 588, A58 (2016).
- Burkert, A., N.M. Förster Schreiber, R. Genzel, P. Lang, L.J. Tacconi, E. Wisnioski, S. Wuyts, K. Bandara, A. Beifiori, R. Bender, G. Brammer, J. Chan, R. Davies, A. Dekel, M. Fabricius, M. Fossati, S. Kulkarni, D. Lutz, J.T. Mendel, I. Momcheva, E.J. Nelson, T. Naab, A. Renzini, R. Saglia, R.M. Sharples, A. Sternberg, D. Wilman and E. Wuyts: The Angular Momentum Distribution and Baryon Content of Star-forming Galaxies at  $z \sim 1-3$ . *Ap. J.* 826, 214 (2016).
- Burtscher, L., R.I. Davies, J. Graciá-Carpio, M.J. Koss, M.-Y. Lin, D. Lutz, P. Nandra, H. Netzer, G. Orban de Xivry, C. Ricci, D.J. Rosario, S. Veilleux, A. Contursi, R. Genzel, A. Schnorr-Müller, A. Sternberg, E. Sturm and L.J. Tacconi: On the relation of optical obscuration and X-ray absorption in Seyfert galaxies. *Astron. Astrophys.* 586, A28 (2016).
- Böhringer, H., G. Chon and P.P. Kronberg: The Cosmic Large-Scale Structure in X-rays (CLASSIX) Cluster Survey. I. Probing galaxy cluster magnetic fields with line of sight rotation measures. *Astron. Astrophys.* 596, A22 (2016).
- Caldú-Primo, A. and A. Schruba: Molecular Gas Velocity Dispersions in the Andromeda Galaxy. *Astron. J.* 151, 34 (2016).
- Calderón, D., A. Ballone, J. Cuadra, M. Schartmann, A. Burkert and S. Gillessen: Clump formation through colliding stellar winds in the Galactic Centre. *Mon. Not. R. Astron. Soc.* 455, 4388-4398 (2016).
- Calderón, D., F.E. Bauer, S. Veilleux, J. Graciá-Carpio, E. Sturm, P. Lira, S. Schulze and S. Kim: Searching for molecular outflows in hyperluminous infrared galaxies. *Mon. Not. R. Astron. Soc.* 460, 3052-3062 (2016).
- Calmonte, U., K. Altwegg, H. Balsiger, J.J. Berthelier, A. Bieler, G. Cessateur, F. Dhooghe, E.F. van Dishoeck, B. Fiethe, S.A. Fuselier, S. Gasc, T.I. Gombosi, M. Hässig, L. Le Roy, M. Rubin, T. Sémon, C.-Y. Tzou and S.F. Wampfler: Sulphur-bearing species in the coma of comet 67P/Churyumov-Gerasimenko. *Mon. Not. R. Astron. Soc.* 462, S253-S273 (2016).
- Caminati, W., L. Evangelisti, G. Feng, B.M. Giuliano, Q.

- Gou, S. Melandri and J.-U. Grabow: On the Cl...C halogen bond: a rotational study of CF<sub>3</sub>Cl-CO. *Physical Chemistry Chemical Physics* 18, 10.1039/C6CP01059H, 17851-17855 (2016).
- Caminha, G.B., C. Grillo, P. Rosati, ..., S. Seitz, et al.: CLASH-VLT: A highly precise strong lensing model of the galaxy cluster RXC J2248.7-4431 (Abell S1063) and prospects for cosmography. *Astron. Astrophys.* 587, A80 (2016).
- Campbell, J.L., R.K. Friesen, P.G. Martin, P. Caselli, J. Kauffmann and J.E. Pineda: Contraction Signatures toward Dense Cores in the Perseus Molecular Cloud. *Ap. J.* 819, 143 (2016).
- Cappi, M., B. De Marco, G. Ponti, F. Ursini, P.-O. Petrucci, S. Bianchi, J.S. Kaastra, G.A. Kriss, M. Mehdipour, M. Whewell, N. Arav, E. Behar, R. Boissay, G. Branduardi-Raymont, E. Costantini, J. Ebrero, L. Di Gesu, F.A. Harrison, S. Kaspi, G. Matt, S. Paltani, B.M. Peterson, K.C. Steenbrugge and D.J. Walton: Anatomy of the AGN in NGC 5548. VIII. XMM-Newton's EPIC detailed view of an unexpected variable multilayer absorber. *Astron. Astrophys.* 592, A27 (2016).
- Carney, M.T., U.A. Yıldız, J.C. Mottram, E.F. van Dishoeck, J. Ramchandani and J.K. Jørgensen: Classifying the embedded young stellar population in Perseus and Taurus and the LOMASS database. *Astron. Astrophys.* 586, A44 (2016).
- Carollo, C.M., A. Cibinel, S.J. Lilly, A. Pipino, S. Bonoli, A. Finoguenov, F. Miniati, P. Norberg and J.D. Silverman: ZENS. IV. Similar Morphological Changes Associated with Mass Quenching and Environment Quenching and the Relative Importance of Bulge Growth versus the Fading of Disks\*. *Ap. J.* 818, 180 (2016).
- Cassarà, L.P., D. Maccagni, B. Garilli, ..., M. Salvato, et al.: Effect of the star formation histories on the SFR-M, relation at  $z \geq 2$ . *Astron. Astrophys.* 593, A9 (2016).
- Cazaux, S., M. Minissale, F. Dulieu and S. Hocuk: Dust as interstellar catalyst. II. How chemical desorption impacts the gas. *Astron. Astrophys.* 585, A55 (2016).
- Cazzoli, G., V. Lattanzi, T. Kirsch, J. Gauss, B. Tercero, J. Cernicharo and C. Puzzarini: Laboratory measurements and astronomical search for the HSO radical. *Astron. Astrophys.* 591, A126 (2016).
- Chan, J.C.C., A. Beifiori, J.T. Mendel, R.P. Saglia, R. Bender, M. Fossati, A. Galametz, M. Wegner, D.J. Wilman, M. Cappellari, R.L. Davies, R.C.W. Houghton, L.J. Prichard, I.J. Lewis, R. Sharples and J.P. Stott: Sizes, colour gradients and resolved stellar mass distributions for the massive cluster galaxies in XMMUJ2235-2557 at  $z = 1.39$ . *Mon. Not. R. Astron. Soc.* 458, 3181-3209 (2016).
- Chang, C., A. Pujol, E. Gaztañaga, ..., J.J. Mohr, et al.: Galaxy bias from the Dark Energy Survey Science Verification data: combining galaxy density maps and weak lensing maps. *Mon. Not. R. Astron. Soc.* 459, 3203-3216 (2016).
- Chang, Z., S. Zhang, L. Ji, Y.P. Chen, P. Kretschmar, E. Kuulkers, W. Collmar and C.Z. Liu: Investigation of the energy dependence of the orbital light curve in LS 5039. *Mon. Not. R. Astron. Soc.* 463, 495-501 (2016).
- Childress, M. J., B.E. Tucker, F. Yuan, ..., R.L. Davies, et al.: The ANU WiFeS SuperNovA Programme (AWSNAP). *Publications of the Astronomical Society of Australia* 33, 55-83 (2016).
- Chiu, I., A. Saro, J. Mohr, S. Desai, S. Bocquet, R. Capasso, C. Gangkofner, N. Gupta and J. Liu: Stellar mass to halo mass scaling relation for X-ray-selected low-mass galaxy clusters and groups out to redshift  $z \approx 1$ . *Mon. Not. R. Astron. Soc.* 458, 379-393 (2016).
- Chiu, I., J. Mohr, M. McDonald, S. Bocquet, M.L.N. Ashby, M. Bayliss, B.A. Benson, L.E. Bleem, M. Brodwin, S. Desai, J.P. Dietrich, W.R. Forman, C. Gangkofner, A.H. Gonzalez, C. Hennig, J. Liu, C.L. Reichardt, A. Saro, B. Stalder, S.A. Stanford, J. Song, T. Schrabback, R. vSuhada, V. Strazzullo and A. Zenteno: Baryon content of massive galaxy clusters at  $0.57 < z < 1.33$ . *Mon. Not. R. Astron. Soc.* 455, 258-275 (2016).
- Chiu, I., J.P. Dietrich, J. Mohr, D.E. Applegate, B.A. Benson, L.E. Bleem, M.B. Bayliss, S. Bocquet, J.E. Carlstrom, R. Capasso, S. Desai, C. Gangkofner, A.H. Gonzalez, N. Gupta, C. Hennig, H. Hoekstra, A. vonder Linden, J. Liu, M. McDonald, C.L. Reichardt, A. Saro, T. Schrabback, V. Strazzullo, C.W. Stubbs and A. Zenteno: Detection of enhancement in number densities of background galaxies due to magnification by massive galaxy clusters. *Mon. Not. R. Astron. Soc.* 457, 3050-3065 (2016).
- Chon, G., E. Puchwein and H. Böhringer: The effect of AGN feedback on the X-ray morphologies of clusters: Simulations vs. observations. *Astron. Astrophys.* 592, A46 (2016).
- Chuang, K.-J., G. Fedoseev, S. Ioppolo, E.F. van Dishoeck and H. Linnartz: H-atom addition and abstraction reactions in mixed CO, H<sub>2</sub>CO and CH<sub>3</sub>OH ices - an extended view on complex organic molecule formation. *Mon. Not. R. Astron. Soc.* 455, 1702-1712 (2016).
- Cigan, P., L. Young, D. Cormier, V. Lebouteiller, S. Madden, D. Hunter, E. Brinks, B. Elmegreen, A. Schrubba, V. Heesen (The Little Things Team): Herschel Spectroscopic Observations of Little Things Dwarf Galaxies. *Astron. J.* 151, 14 (2016).
- Civano, F., S. Marchesi, A. Comastri, M.C. Urry, M. Elvis, N. Cappelluti, S. Puccetti, M. Brusa, G. Zamorani, G. Hasinger, T. Aldcroft, D.M. Alexander, V. Allevato, H. Brunner, P. Capak, A. Finoguenov, F. Fiore, A. Fruscione, R. Gilli, K. Glotfelty, R.E. Griffiths, H. Hao, F.A. Harrison, K. Jahnke, J. Kartaltepe, A. Karim, S.M. La Massa, G. Lanzuisi, T. Miyaji, P. Ranalli, M. Salvato, M. Sargent, N.J. Scoville, K. Schawinski, E. Schinnerer, J. Silverman, V. Smolcic, D. Stern, S. Toft, B. Trakhenbrot, E. Treister and C. Vignali: The Chandra Cosmos Legacy Survey: Overview and Point Source Catalog. *Ap. J.* 819, 62 (2016).
- Clavel, M., J.A. Tomsick, A. Bodaghee, J.-L. Chiu, F.M. Fornasini, J. Hong, R. Krivonos, G. Ponti, F. Rahoui and D. Stern: IGR J18293-1213 is an eclipsing cataclysmic variable. *Mon. Not. R. Astron. Soc.* 461, 304-311 (2016).
- Clerc, N., A. Merloni, Y.-Y. Zhang, A. Finoguenov, T. Dwelly, K. Nandra, C. Collins, K. Dawson, J.-P. Kneib, E. Rozo,

- E. Rykoff, T. Sadibekova, J. Brownstein, Y.-T. Lin, J. Ridl, M. Salvato, A. Schwobe, M. Steinmetz, H.-J. Seo and J. Tinker: SPIDERS: the spectroscopic follow-up of X-ray selected clusters of galaxies in SDSS-IV. *Mon. Not. R. Astron. Soc.* 463, 4490-4515 (2016).
- Comparat, J., T. Delubac, S. Jouvel, ..., D. Gruen, et al.: SDSS-IV eBOSS emission-line galaxy pilot survey. *Astron. Astrophys.* 592: A121, pp. 1-18 (2016).
- Connaughton, V., E. Burns, A. Goldstein, ..., A. von Kienlin, ..., K. Toelge, et al.: Fermi GBM Observations of LIGO Gravitational-wave Event GW150914. *Ap. J. Lett.* 826, L6 (2016).
- Consolandi, G., G. Gavazzi, M. Fumagalli, M. Dotti and M. Fossati: Robust automatic photometry of local galaxies from SDSS. Dissecting the color magnitude relation with color profiles. *Astron. Astrophys.* 591, A38 (2016).
- Cooke, E.A., N.A. Hatch, D. Stern, A. Rettura, M. Brodwin, A. Galametz, D. Wylezalek, C. Bridge, C.J. Conselice, C. De Breuck, A.H. Gonzalez and M. Jarvis: A Mature Galaxy Cluster at  $z=1.58$  around the Radio Galaxy 7C1753+6311. *Ap. J.* 816, 83 (2016).
- Corral, A., I. Georgantopoulos, A. Comastri, P. Ranalli, A. Akylas, M. Salvato, G. Lanzuisi, C. Vignali and L. Koutoulidis: X-ray observations of dust obscured galaxies in the Chandra deep field south. *Astron. Astrophys.* 592, A109 (2016).
- Costantini, E., G. Kriss, J.S. Kaastra, S. Bianchi, G. Branduardi-Raymont, M. Cappi, B. De Marco, J. Ebrero, M. Mehdipour, P.-O. Petrucci, S. Paltani, G. Ponti, K.C. Steenbrugge and N. Arav: Multiwavelength campaign on Mrk 509. XV. Global modeling of the broad emission lines in the optical, UV, and X-ray bands. *Astron. Astrophys.* 595, A106 (2016).
- Couédel, L., T.B. Röcker, S.K. Zhdanov, V. Nosenko, H.M. Thomas and A.V. Ivlev: Forced mode coupling in 2D complex plasmas. *EPL (Europhysics Letters)* 115, 45002 (2016).
- Courtin, R., H. Feuchtgruber, S.-j. Kim and E. Lellouch: The 6-7  $\mu\text{m}$  spectrum of Titan from ISO/SWS observations. *Icarus* 270, 389-398 (2016).
- Coutens, A., J.K. Jørgensen, M.H.D. van der Wiel, H.S.P. Müller, J.M. Lykke, P. Bjerkeli, T.L. Bourke, H. Calcutt, M.N. Drozdovskaya, C. Favre, E.C. Fayolle, R.T. Garrod, S.K. Jacobsen, N.F.W. Ligterink, K.I. Öberg, M.V. Persson, E.F. van Dishoeck and S.F. Wampfler: The ALMA-PILS survey: First detections of deuterated formamide and deuterated isocyanic acid in the interstellar medium. *Astron. Astrophys.* 590, L6 (2016).
- Couto, G. S., T. Storchi-Bergmann, A. Robinson, R.A. Riffel, P. Kharb, D. Lena and A. Schnorr-Müller: Integral field spectroscopy of the circum-nuclear region of the radio Galaxy Pictor A. *Mon. Not. R. Astron. Soc.*, 458(1), 855-867 (2016).
- Cowperthwaite, P.S., E. Berger, M. Soares-Santos, ..., J.J. Mohr, ..., J. Weller, et al.: A DECam Search for an Optical Counterpart to the LIGO Gravitational-wave Event GW151226. *Ap. J. Lett.* 826, L29 (2016).
- Crawford, T.M., R. Chown, G.P. Holder, ..., J.J. Mohr, et al.: Maps of the Magellanic Clouds from Combined South Pole Telescope and PLANCK Data. *Ap. J. Supp. Ser.* 227, 23 (2016).
- Crocce, M., J. Carretero, A.H. Bauer, ..., J. Weller, et al.: Galaxy clustering, photometric redshifts and diagnosis of systematics in the DES Science Verification data. *Mon. Not. R. Astron. Soc.* 455, 4301-4324 (2016).
- Crowley, C., R. Kohley, N.C. Hambly, ..., F. Raison, et al.: Gaia Data Release 1. On-orbit performance of the Gaia CCDs at L2. *Astron. Astrophys.* 595, A6 (2016).
- Cuesta, A.J., M. Vargas-Magaña, F. Beutler, ..., A.G. Sánchez, et al.: The clustering of galaxies in the SDSS-III Baryon Oscillation Spectroscopic Survey: baryon acoustic oscillations in the correlation function of LOWZ and CMASS galaxies in Data Release 12. *Mon. Not. R. Astron. Soc.* 457, 1770-1785 (2016).
- D'Ai, A., P.A. Evans, D.N. Burrows, N.P.M. Kuin, D.A. Kann, S. Campana, A. Maselli, P. Romano, G. Cusumano, V. La Parola, S.D. Barthelmy, A.P. Beardmore, S.B. Cenko, M. De Pasquale, N. Gehrels, J. Greiner, J.A. Kennea, S. Klose, A. Melandri, J.A. Nousek, J.P. Osborne, D.M. Palmer, B. Sbarufatti, P. Schady, M.H. Siegel, G. Tagliaferri, R. Yates and S. Zane: Evidence for the magnetar nature of 1E 161348-5055 in RCW 103. *Mon. Not. R. Astron. Soc.* 463, 2394-2404 (2016).
- Dadina, M., C. Vignali, M. Cappi, G. Lanzuisi, G. Ponti, B. De Marco, G. Chartas and M. Giustini: XMM-Newton reveals a Seyfert-like X-ray spectrum in the  $z = 3.6$  QSO B1422+231. *Astron. Astrophys.* 592, A104 (2016).
- Daniel, F., L.H. Coudert, A. Punanova, J. Harju, A. Faure, E. Roueff, O. Sipilä, P. Caselli, R. Güsten, A. Pon and J.E. Pineda: The  $\text{NH}_2\text{D}$  hyperfine structure revealed by astrophysical observations. *Astron. Astrophys.* 586, L4 (2016).
- Dark Energy Survey Collaboration, T. Abbott, F.B. Abdalla, J. Aleksic, ..., J.J. Mohr, ..., J. Weller, et al.: The Dark Energy Survey: more than dark energy - an overview. *Mon. Not. R. Astron. Soc.* 460, 1270-1299 (2016).
- Davies, R.L., A.M. Medling, V. U, C.E. Max, D. Sanders and L.J. Kewley: Reconstructing merger timelines using star cluster age distributions: the case of MCG+08-11-002. *Mon. Not. R. Astron. Soc.* 458, 158-173 (2016).
- Davies, R.L., B. Groves, L.J. Kewley, M.A. Dopita, E.J. Hampton, P. Shastri, J. Scharwaechter, R. Sutherland, P. Kharb, H. Bhatt, C. Jin, J. Banfield, I. Zaw, B. James, S. Juneau and S. Srivastava: Dissecting Galaxies: Spatial and Spectral Separation of Emission Excited by Star Formation and AGN Activity. *Mon. Not. R. Astron. Soc.* 462, 1616-1629 (2016).
- Davies, R.L., M.A. Dopita, L.J. Kewley, B. Groves, R. Sutherland, E.J. Hampton, P. Shastri, P. Kharb, H. Bhatt, J. Scharwaechter, C. Jin, J. Banfield, I. Zaw, B. James, S. Juneau and S. Srivastava: The Role of Radiation Pressure in the Narrow Line Regions of Seyfert Host Galaxies. *Ap. J.* 824, 50-58 (2016).
- Davis, T.A., J. Greene, C.-P. Ma, V. Pandya, J.P. Blakeslee, N. McConnell and J. Thomas: The MASSIVE survey - III. Molecular gas and a broken Tully-Fisher relation in the

- most massive early-type galaxies. *Mon. Not. R. Astron. Soc.* 455, 214-226 (2016).
- Dawson, K.S., J.-P. Kneib, W.J. Percival, ..., N. Clerc, ..., T. Dwelly, ..., A. Georgakakis, ..., A. Merloni, ..., K. Nandra, ..., M. Salvato, et al.: The SDSS-IV Extended Baryon Oscillation Spectroscopic Survey: Overview and Early Data. *Astron. J.* 151, 44 (2016).
- De Cicco, D., S. Falocco, M. Paolillo, G. Covone, G. Longo, A. Grado, L. Limatola, M.T. Botticella, G. Pignatta, E. Cappellaro, M. Vaccari, D. Trevese, F. Vagnetti, M. Salvato, M. Radovich, W.N. Brandt, M. Capaccioli, N.R. Napolitano and P. Schipani: Variability-Selected AGNs in the VST-SUDARE Survey of the COSMOS Field. *The Universe of Digital Sky Surveys* 42, 269 (2016).
- de Gasperin, F., H.T. Intema, J. Ridel, M. Salvato, R. van Weeren, A. Bonafede, J. Greiner, R. Cassano and M. Brüggen: Tracing low-mass galaxy clusters using radio relics: the discovery of Abell 3527-bis. *Astron. Astrophys.* 597, A15 (2016).
- de Haan, T., B.A. Benson, L.E. Bleem, ..., J.J. Mohr, et al.: Cosmological Constraints from Galaxy Clusters in the 2500 Square-degree SPT-SZ Survey. *Ap. J.* 832, 95 (2016).
- De Luca, A., R. Salvaterra, A. Tiengo, D. D'Agostino, M.G. Watson, F. Haberl and J. Wilms: Science with the EXTraS Project: Exploring the X-Ray Transient and Variable Sky. *The Universe of Digital Sky Surveys* 42, 291 (2016).
- De Marco, B. and G. Ponti: The Reverberation Lag in the Low-mass X-ray Binary H1743-322. *Ap. J.* 826, 70 (2016).
- Del Moro, A., D.M. Alexander, F.E. Bauer, E. Daddi, D.D. Kocevski, D.H. McIntosh, F. Stanley, W.N. Brandt, D. Elbaz, C.M. Harrison, B. Luo, J.R. Mullaney and Y.Q. Xue: Mid-infrared luminous quasars in the GOODS-Herschel fields: a large population of heavily obscured, Compton-thick quasars at  $z \approx 2$ . *Mon. Not. R. Astron. Soc.* 456, 2105-2125 (2016).
- Desai, S., J.J. Mohr, E. Bertin, M. Kümmel and M. Wetzstein: Detection and removal of artifacts in astronomical images. *Astronomy and Computing* 16, 67-78 (2016).
- Dexter, J.: A public code for general relativistic, polarised radiative transfer around spinning black holes. *Mon. Not. R. Astron. Soc.* 462, 115-136 (2016).
- Diehl, R: New insights from cosmic gamma rays. *Journal of Physics: Conference Series*, 703: 012001, 1-22 (2016).
- Domínguez, R., M. Fellhauer, M. Blaña, J.P. Farias, J. Dabringhausen, G.N. Candlish, R. Smith and N. Choque: Could Segue 1 be a destroyed star cluster? – a dynamical perspective. *Mon. Not. R. Astron. Soc.*, 461(4), 3630-3638 (2016).
- Done, C. and C. Jin: The mass and spin of the extreme Narrow Line Seyfert 1 Galaxy 1H 0707-495 and its implications for the trigger for relativistic jets. *Mon. Not. R. Astron. Soc.*, 460(2), 1716-1724 (2016).
- Drabek-Maunder, E., S. Mohanty, J. Greaves, I. Kamp, R. Meijerink, M. Spaans, W.-F. Thi and P. Voitke: HCO<sup>+</sup> Detection of Dust-depleted Gas in the Inner Hole of the LkCa 15 Pre-transitional Disk. *Ap. J.* 833, 260 (2016).
- Drozdovskaya, M.N., C. Walsh, E.F. van Dishoeck, K. Furuya, U. Marboeuf, A. Thiabaud, D. Harsono and R. Visser: Cometary ices in forming protoplanetary disc mid-planes. *Mon. Not. R. Astron. Soc.* 462, 977-993 (2016).
- Dubernet, M.L., B.K. Antony, Y.A. Ba, ..., C.P. Endres, et al.: The virtual atomic and molecular data centre (VAMDC) consortium. *J. Phys. (B)* 49, 074003, (2016).
- Dunham, M.M., S.S.R. Offner, J.E. Pineda, T.L. Bourke, J.J. Tobin, H.G. Arce, X. Chen, J. Di Francesco, D. Johnstone, K.I. Lee, P.C. Myers, D. Price, S.I. Sadavoy and S. Schnee: An ALMA Search for Substructure, Fragmentation, and Hidden Protostars in Starless Cores in Chamaeleon I. *Ap. J.* 823 (2016).
- Ebrero, J., J.S. Kaastra, G.A. Kriss, L. Di Gesu, E. Costantini, M. Mehdipour, S. Bianchi, M. Cappi, R. Boissay, G. Branduardi-Raymont, P.-O. Petrucci, G. Ponti, F. Pozo Núñez, H. Seta, K.C. Steenbrugge and M. Whewell: Anatomy of the AGN in NGC 5548. VI. Long-term variability of the warm absorber. *Astron. Astrophys.* 587, A129 (2016).
- Eistrup, C., C. Walsh and E.F. van Dishoeck: Setting the volatile composition of (exo)planet-building material. Does chemical evolution in disk midplanes matter? *Astron. Astrophys.* 595, A83 (2016).
- Ekeberg, T., M. Svenda, M.M. Seibert, ..., G. Hauser, ..., G. Weidenspointner, et al.: Single-shot diffraction data from the Mimivirus particle using an X-ray free-electron laser. *Scientific Data* 3, 160060, (2016).
- Ellison, S. L., H. Teimoorinia, D.J. Rosario and J.T. Mendel: The infrared luminosities of  $\sim 332\,000$  SDSS galaxies predicted from artificial neural networks and the Herschel Stripe 82 survey. *Mon. Not. R. Astron. Soc.*, 455(1), 370-385 (2016).
- Ellison, S.L., H. Teimoorinia, D.J. Rosario and J.T. Mendel: The star formation rates of active galactic nuclei host galaxies. *Mon. Not. R. Astron. Soc.: Letters*, 458(1), L34-L38 (2016).
- Endres, C. P., S. Schlemmer, P. Schilke, J. Stutzki and H.S.P. Müller: The Cologne Database for Molecular Spectroscopy, CDMS, in the Virtual Atomic and Molecular Data Centre, VAMDC. *Journal of Molecular Spectroscopy* 327 (2016).
- English, W., M.J. Hardcastle and M.G.H. Krause: Numerical modelling of the lobes of radio galaxies in cluster environments – III. Powerful relativistic and non-relativistic jets. *Mon. Not. R. Astron. Soc.*, 461(2), 2025-2043 (2016).
- Erfanianfar, G., P. Popesso, A. Finoguenov, D. Wilman, S. Wuyts, A. Biviano, M. Salvato, M. Mirkazemi, L. Morselli, F. Ziparo, K. Nandra, D. Lutz, D. Elbaz, M. Dickinson, M. Tanaka, M.B. Altieri, H. Aussel, F. Bauer, S. Bertta, R.M. Bielby, N. Brandt, N. Cappelluti, A. Cimatti, M.C. Cooper, D. Fadda, O. Ilbert, E. Le Floch, B. Magnelli, J.S. Mulchaey, R. Nordon, J.A. Newman, A. Poglitsch and F. Pozzi: Non-linearity and environmental dependence of the star-forming galaxies main sequence. *Mon. Not. R. Astron. Soc.* 455, 2839-2851 (2016).
- Erwin, P. and V.P. Debattista: Caught in the Act: Direct Detection of Galactic Bars in the Buckling Phase. *Ap. J. Lett.* 825, L30 (2016).

- Esplugues, G.B., S. Cazaux, R. Meijerink, M. Spaans and P. Caselli: Surface chemistry in photodissociation regions. *Astron. Astrophys.* 591, A52 (2016).
- Esposito, P., G.L. Israel, A. Belfiore, G. Novara, L. Sidoli, G.A. Rodríguez Castillo, A. De Luca, A. Tiengo, F. Haberl, R. Salvaterra, A.M. Read, D. Salvetti, S. Sandrelli, M. Marelli, J. Wilms and D. D'Agostino: EXTraS discovery of an 1.2-s X-ray pulsar in M 31. *Mon. Not. R. Astron. Soc.* 457, L5-L9 (2016).
- Faber, S.M. and E. van Dishoeck: Introduction. *Annual Review of Astron. Astrophys.* 54, v-vii (2016).
- Fabian, A.C., S.A. Walker, H.R. Russell, C. Pinto, R.E.A. Canning, P. Salome, J.S. Sanders, G.B. Taylor, E.G. Zweibel, C.J. Conelice, F. Combes, C.S. Crawford, G.J. Ferland, J.S. Gallagher III, N.A. Hatch, R.M. Johnstone and C.S. Reynolds: HST imaging of the dusty filaments and nucleus swirl in NGC4696 at the centre of the Centaurus Cluster. *Mon. Not. R. Astron. Soc.* 461, 922-928 (2016).
- Facchini, S., C.F. Manara, P.C. Schneider, C.J. Clarke, J. Bouvier, G. Rosotti, R. Booth and T.J. Haworth: Violent environment of the inner disk of RW Aurigae A probed by the 2010 and 2015 dimming events. *Astron. Astrophys.* 596, A38 (2016).
- Facchini, S., C.J. Clarke and T.G. Bisbas: External photoevaporation of protoplanetary discs in sparse stellar groups: the impact of dust growth. *Mon. Not. R. Astron. Soc.* 457, 3593-3610 (2016).
- Faisst, A.L., P. Capak, B.C. Hsieh, C. Laigle, M. Salvato, L. Tasca, P. Cassata, I. Davidzon, O. Ilbert, O. Le Fèvre, D. Masters, H.J. McCracken, C. Steinhardt, J.D. Silverman, S. de Barros, G. Hasinger and N.Z. Scoville: A Coherent Study of Emission Lines from Broadband Photometry: Specific Star Formation Rates and [O iii]/H $\beta$  Ratio at  $z > 6$ . *Ap. J.* 821, 122 (2016).
- Faisst, A.L., P.L. Capak, I. Davidzon, M. Salvato, C. Laigle, O. Ilbert, M. Onodera, G. Hasinger, Y. Kakazu, D. Masters, H.J. McCracken, B. Mobasher, D. Sanders, J.D. Silverman, L. Yan and N.Z. Scoville: Rest-UV Absorption Lines as Metallicity Estimator: The Metal Content of Star-forming Galaxies at  $z \sim 5$ . *Ap. J.* 822, 29 (2016).
- Falocco, S., D. De Cicco, M. Paolillo, ..., M. Salvato, et al: A New Search for Variability-Selected Active Galaxies Within the VST SUDARE-VOICE Survey: The Chandra Deep Field South and the SERVS-SWIRE Area. *The Universe of Digital Sky Surveys* 42, 275 (2016).
- Fedele, D., E.F. van Dishoeck, M. Kama, S. Bruderer and M.R. Hogerheijde: Probing the 2D temperature structure of protoplanetary disks with Herschel observations of high-J CO lines. *Astron. Astrophys.* 591, A95 (2016).
- Fedoseev, G., K.-J. Chuang, E.F. van Dishoeck, S. Ioppolo and H. Linnartz: Simultaneous hydrogenation and UV-photolysis experiments of NO in CO-rich interstellar ice analogues; linking HNCO, OCN, NH<sub>2</sub>CHO, and NH<sub>2</sub>OH. *Mon. Not. R. Astron. Soc.* 460, 4297-4309 (2016).
- Feng, S., H. Beuther, Q. Zhang, H.B. Liu, Z. Zhang, K. Wang and K. Qiu: Outflow Detection in a 70  $\mu$ m dark high-mass Core. *Ap. J.* 828, 100-108 (2016).
- Feng, S., H. Beuther, Q. Zhang, T. Henning, H. Linz, H., S. Ragan and R. Smith, R: Are infrared dark clouds really quiescent? *Astron. Astrophys.* 592: A21, pp. 1-29 (2016).
- Feng, S., H. Beuther, D. Semenov, T. Henning, H. Linz, E.A.C. Mills, R. Teague: Inferring the evolutionary stages of the internal structures of NGC7538S and IRS1 from chemistry. *Astron. Astrophys.* 593: A46, pp. 1-32 (2016).
- Fernández-Trincado, J.G., A.C. Robin, E. Moreno, ..., A. Pérez-Villegas, et al.: Discovery of a Metal-poor Field Giant with a Globular Cluster Second-generation Abundance Pattern. *Ap. J.* 833, 132 (2016).
- Fierlinger, K.M., A. Burkert, E. Ntormousi, P. Fierlinger, M. Schartmann, A. Ballone, M.G.H. Krause and R. Diehl: Stellar feedback efficiencies: supernovae versus stellar winds. *Mon. Not. R. Astron. Soc.* 456, 710-730 (2016).
- Fish, V.L., Johnson, Michael D.; Doeleman, ..., Dexter, Jason, et al.: Persistent Asymmetric Structure of Sagittarius A\* on Event Horizon Scales. *Ap. J.* 820 (2016).
- Fontani, F., B. Commerçon, A. Giannetti, M.T. Beltrán, A. Sánchez-Monge, L. Testi, J. Brand, P. Caselli, R. Cesaroni, R. Dodson, S. Longmore, M. Rioja, J.C. Tan and C.M. Walmsley: Magnetically regulated fragmentation of a massive, dense, and turbulent clump. *Astron. Astrophys.* 593, L14 (2016).
- Fontani, F., V.M. Rivilla, P. Caselli, A. Vasyunin and A. Palau: Phosphorus-bearing Molecules in Massive Dense Cores. *Ap. J. Lett.* 822, L30 (2016).
- Fossati, M., M. Fumagalli, A. Boselli, G. Gavazzi, M. Sun and D.J. Wilman: MUSE sneaks a peek at extreme ram-pressure stripping events - II. The physical properties of the gas tail of ESO137-001. *Mon. Not. R. Astron. Soc.* 455, 2028-2041 (2016).
- Fotopoulou, S., F. Pacaud, S. Paltani, ..., J.J. Mohr, et al.: The XXL Survey. VI. The 1000 brightest X-ray point sources. *Astron. Astrophys.* 592, A5 (2016).
- Fotopoulou, S., J. Buchner, I. Georgantopoulos, G. Hasinger, M. Salvato, A. Georgakakis, N. Cappelluti, P. Ranalli, L.T. Hsu, M. Brusa, A. Comastri, T. Miyaji, K. Nandra, J. Aird and S. Paltani: The 5-10 keV AGN luminosity function at  $0.01 < z < 4.0$ . *Astron. Astrophys.* 587, A142 (2016).
- Franchini, A., G. Lodato and S. Facchini: Lense-Thirring precession around supermassive black holes during tidal disruption events. *Mon. Not. R. Astron. Soc.* 455, 1946-1956 (2016).
- Fray, N., A. Bardyn, H. Cottin, ..., G. Haerendel, ..., H. Höfner, et al.: High-molecular-weight organic matter in the particles of comet 67P/Churyumov-Gerasimenko. *Nature* 538, 72-74 (2016).
- Friedrich, O., S. Seitz, T.F. Eifler and D. Gruen: Performance of internal covariance estimators for cosmic shear correlation functions. *Mon. Not. R. Astron. Soc.* 456, 2662-2680 (2016).
- Fritz, T.K., S. Chatzopoulos, O. Gerhard, S. Gillessen, R. Genzel, O. Pfuhl, S. Tacchella, F. Eisenhauer and T. Ott: The Nuclear Cluster of the Milky Way: Total Mass and Luminosity. *Ap. J.* 821, 44 (2016).
- Furuya, K., E.F. van Dishoeck and Y. Aikawa: Reconstructing the history of water ice formation from HDO/H<sub>2</sub>O and



- D<sub>2</sub>O/HDO ratios in protostellar cores. *Astron. Astrophys.* 586, A127 (2016).
- Gaia Collaboration, A.G.A. Brown, A. Vallenari, T. Prusti, ..., A. Guegen, ..., F. Raison, et al.: Gaia Data Release 1. Summary of the astrometric, photometric, and survey properties. *Astron. Astrophys.* 595, A2 (2016).
- Gaia Collaboration, T. Prusti, J.H.J. de Bruijne, A.G.A. Brown, ..., A. Guegen, et al.: The Gaia mission. *Astron. Astrophys.* 595, A1 (2016).
- Galbany, L., J.P. Anderson, F.F. Rosales-Ortega, H. Kun-carayakti, T. Krühler, S.F. Sánchez, J. Falcón-Barroso, E. Pérez, J.C. Maureira, M. Hamuy, S. González-Gaitán, F. Förster and V. Moral: Characterizing the environments of supernovae with MUSE. *Mon. Not. R. Astron. Soc.* 455, 4087-4099 (2016).
- Gallimore, J.F., M. Elitzur, R. Maiolino, A. Marconi, C.P. O'Dea, D. Lutz, S.A. Baum, R. Nikutta, C.M.V. Impellizzeri, R. Davies, A.E. Kimball and E. Sani: High-velocity Bipolar Molecular Emission from an AGN Torus. *Ap. J. Lett.* 829, L7 (2016).
- Gao, D.-Y., H.-X. Ji, C. Cao, S.-M. Hu, R.A. Wittenmyer, Z.-W. Hu, F. Grupp, H. Kellermann, K. Li and D.-F. Guo: WES—Weihai Echelle Spectrograph. *Publ. Astron. Soc. Pac.* 128, 125002 (2016).
- García-Burillo, S., F. Combes, C. Ramos Almeida, A. Usero, M. Krips, A. Alonso-Herrero, S. Aalto, V. Casasola, L.K. Hunt, S. Martín, S. Viti, L. Colina, F. Costagliola, A. Eckart, A. Fuente, C. Henkel, I. Márquez, R. Neri, E. Schinnerer, L.J. Tacconi and P.P. van der Werf: ALMA Resolves the Torus of NGC 1068: Continuum and Molecular Line Emission. *Ap. J. Lett.* 823, L12 (2016).
- Gerhard, O., C. Wegg and M. Portail: Photometric Surveys of the Galactic Bulge and Long Bar. *The Universe of Digital Sky Surveys* 42, 41 (2016).
- Gerdes, D. W., R.J. Jennings, G.M. Bernstein, ..., D. Gruen, ..., and The DES Collaboration: Observation of two new L4 Neptune Trojans in the dark energy survey supernova fields. *The Astronomical Journal*, 151(2): 39, pp. 1-6 (2016).
- Giannantonio, T., P. Fosalba, R. Cawthon, ..., J.J. Mohr, et al.: CMB lensing tomography with the DES Science Verification galaxies. *Mon. Not. R. Astron. Soc.* 456, 3213-3244 (2016).
- Giles, P.A., B.J. Maughan, F. Pacaud, M. Lieu, N. Clerc, M. Pierre, C. Adami, L. Chiappetti, J. Démoclés, S. Ettori, J.P. Le Fèvre, T. Ponman, T. Sadibekova, G.P. Smith, J.P. Willis and F. Ziparo: The XXL Survey. III. Luminosity-temperature relation of the bright cluster sample. *Astron. Astrophys.* 592, A3 (2016).
- Giuliano, B.M., R. Martín-Doménech, R.M. Escrivano, J. Manzano-Santamaría and G.M. Muñoz Caro: Interstellar ice analogs: H<sub>2</sub>O ice mixtures with CH<sub>3</sub>OH and NH<sub>3</sub> in the far-IR region. *Astron. Astrophys.* 592, A81 (2016).
- Goodson, M.D., S. Kong, J.C. Tan, F. Heitsch and P. Caselli: Structure, Dynamics, and Deuterium Fractionation of Massive Pre-stellar Cores. *Ap. J.* 833, 274 (2016).
- Gorkhover, T., S. Schorb, R. Coffee, ..., G. Hauser, ..., G. Weidenspointner, et al.: Femtosecond and nanometre visualization of structural dynamics in superheated nanoparticles. *Nature Photonics* 10, 93-97 (2016).
- Goulding, A.D., J.E. Greene, C.-P. Ma, M. Veale, A. Bogdan, K. Nyland, J.P. Blakeslee, N.J. McConnell and J. Thomas: The MASSIVE Survey. IV. The X-ray Halos of the Most Massive Early-type Galaxies in the Nearby Universe. *Ap. J.* 826, 167 (2016).
- Gozaliasl, G., A. Finoguenov, H.G. Khosroshahi, M. Mirkazemi, G. Erfanianfar and M. Tanaka: Brightest group galaxies: stellar mass and star formation rate (paper I). *Mon. Not. R. Astron. Soc.* 458, 2762-2775 (2016).
- Graham, J.F. and P. Schady: The Absolute Rate of LGRB Formation. *Ap. J.* 823, 154 (2016).
- Grandis, S., D. Rapetti, A. Saro, J.J. Mohr and J.P. Dietrich: Quantifying tensions between CMB and distance data sets in models with free curvature or lensing amplitude. *Mon. Not. R. Astron. Soc.* 463, 1416-1430 (2016).
- Green, J.D., Y.-L. Yang, N.J. Evans II, A. Karska, G. Herczeg, E.F. van Dishoeck, J.-E. Lee, R.L. Larson and J. Bouwman: The CDF Archive: Herschel PACS and SPIRE Spectroscopic Data Pipeline and Products for Protostars and Young Stellar Objects. *Astron. J.* 151, 75 (2016).
- Greiner, J., J.M. Burgess, V. Savchenko and H.-F. Yu: On the Fermi-GBM Event 0.4 s after GW150914. *Ap. J. Lett.* 827, L38 (2016).
- Greiner, J., M.J. Michalowski, S. Klose, L.K. Hunt, G. Gentile, P. Kamphuis, R. Herrero-Illana, M. Wieringa, T. Krühler, P. Schady, J. Elliott, J.F. Graham, E. Ibar, F. Knust, A. Nicuesa Guelbenzu, E. Palazzi, A. Rossi and S. Savaglio: Probing dust-obscured star formation in the most massive gamma-ray burst host galaxies. *Astron. Astrophys.* 593, A17 (2016).
- Grieb, J.N., A.G. Sánchez, S. Salazar-Albornoz and C. Dalla Vecchia: Gaussian covariance matrices for anisotropic galaxy clustering measurements. *Mon. Not. R. Astron. Soc.* 457, 1577-1592 (2016).
- Grossi, M., E. Corbelli, L. Bizzocchi, C. Giovanardi, D. Bomans, B. Coelho, I. De Looze, T.S. Gonçalves, L.K. Hunt, E. Leonardo, S. Madden, K. Menéndez-Delmestre, C. Pappalardo and L. Riguccini: Star-forming dwarf galaxies in the Virgo cluster: the link between molecular gas, atomic gas, and dust. *Astron. Astrophys.* 590, A27 (2016).
- Gruen, D., O. Friedrich, A. Amara, ..., S. Seitz, ..., J.J. Mohr, ..., J. Weller, et al.: Weak lensing by galaxy troughs in DES Science Verification data. *Mon. Not. R. Astron. Soc.* 455, 3367-3380 (2016).
- Gruppioni, C., S. Berta, L. Spinoglio, M. Pereira-Santaela, F. Pozzi, P. Andreani, M. Bonato, G.D. Zotti, M. Malkan, M. Negrello, L. Vallini and C. Vignali, C: Tracing black hole accretion with SED decomposition and IR lines: from local galaxies to the high-z Universe. *Mon. Not. R. Astron. Soc.*, 458(4), 4297-4320 (2016).
- Gullberg, B., C. De Breuck, M.D. Lehnert, J. Vernet, R. Bacon, G. Drouart, B. Emonts, A. Galametz, R. Ivison, N.P.H. Nesvadba, J. Richard, N. Seymour, D. Stern and D. Wylezalek: The mysterious morphology of MRC0943-

- 242 as revealed by ALMA and MUSE. *Astron. Astrophys.* 586, A124 (2016).
- Gullberg, B., M.D. Lehnert, C.D. Breuck, S. Branchu, H. Dannerbauer, G. Drouart, B. Emonts, P. Guillard, N. Hatch, N.P.H. Nesvadba, A. Omont, N. Seymour and J. Vernet: ALMA finds dew drops in the dusty spider's web. *Astron. Astrophys.* 591: A73, pp. 1-13 (2016).
- Gómez-Ruiz, A.I., C. Codella, S. Viti, I. Jiménez-Serra, G. Navarra, R. Bachiller, P. Caselli, A. Fuente, A. Gusdorf, B. Lefloch, A. Lorenzani and B. Nisini: Diagnosing shock temperature with NH<sub>3</sub> and H<sub>2</sub>O profiles. *Mon. Not. R. Astron. Soc.* 462, 2203-2217 (2016).
- Guo, Y., D.C. Koo, Y. Lu, J.C. Forbes, M. Rafelski, J.R. Trump, R. Amorín, G. Barro, R. Davé, S.M. Faber, N.P. Hathi, H. Yesuf, M.C. Cooper, A. Dekel, P. Guhathakurta, E.N. Kirby, A.M. Koekemoer, P.G. Pérez-González, L. Lin, J.A. Newman, J.R. Primack, D.J. Rosario, C.N.A. Willmer and R. Yan: Stellar mass-gas-phase metallicity relation at  $0.5 \leq z \leq 0.7$ : a power law with increasing scatter toward the low-mass regime. *Ap. J.* 822(2): 103, pp. 1-18 (2016).
- Haberl, F. and R. Sturm: High-mass X-ray binaries in the Small Magellanic Cloud. *Astron. Astrophys.* 586, A81 (2016).
- Hacar, A., J. Alves, A. Burkert and P. Goldsmith: Opacity broadening and interpretation of suprathermal CO line-widths: Macroscopic turbulence and tangled molecular clouds. *Astron. Astrophys.* 591, A104 (2016).
- Haerendel, G., L. Suttle, S.V. Lebedev, G.F. Swadling, J.D. Hare, G.C. Burdiak, S.N. Bland, J.P. Chittenden, N. Kalmoni, A. Frank, R.A. Smith and F. Suzuki-Vidal: Stop layer: a flow braking mechanism in space and support from a lab experiment. *Plasma Phys. Controlled Fusion* 58, 064001 (2016).
- Haerendel, G.: History of EISCAT - Part 4: On the German contribution to the early years of EISCAT. *History of Geo- and Space Sciences* 7, 67-72 (2016).
- Hamaus, N., A. Pisani, P.M. Sutter, G. Lavaux, S. Escoffier, B.D. Wandelt and J. Weller: Constraints on Cosmology and Gravity from the Dynamics of Voids. *Phys. Rev. Lett.* 117, 091302 (2016).
- Hathi, N.P., O. Le Fèvre, O. Ilbert, ..., M. Salvato, et al.: The VIMOS Ultra Deep Survey: Ly $\alpha$  emission and stellar populations of star-forming galaxies at  $2 < z < 2.5$ . *Astron. Astrophys.* 588, A26 (2016).
- Hatsukade, B., K. Kohno, H. Umehata, I. Aretxaga, K.I. Caputi, J.S. Dunlop, S. Ikarashi, D. Iono, R.J. Ivison, M. Lee, R. Makiya, Y. Matsuda, K. Motohara, K. Nakanishi, K. Ohta, K.-i. Tadaki, Y. Tamura, W.-H. Wang, G.W. Wilson, Y. Yamaguchi and M.S. Yun: SXDF-ALMA 2-arcmin<sup>2</sup> deep survey: 1.1-mm number counts. *Publ. Astron. Soc. Jpn.* 68, 36 (2016).
- Haworth, T.J., D. Boubert, S. Facchini, T.G. Bisbas and C.J. Clarke: Photochemical-dynamical models of externally FUV irradiated protoplanetary discs. *Mon. Not. R. Astron. Soc.* 463, 3616-3629 (2016).
- Haworth, T.J., J.D. Ilee, D.H. Forgan, S. Facchini, et al.: Grand Challenges in Protoplanetary Disc Modelling. *Publ. Astron. Soc. Australia.* 33, e053 (2016).
- Hayashi, M., T. Kodama, I. Tanaka, R. Shimakawa, Y. Koyama, K.-i. Tadaki, T.L. Suzuki and M. Yamamoto: Enhanced Star Formation of Less Massive Galaxies in a Procluser at  $z = 2.5$ . *Ap. J. Lett.* 826, L28 (2016).
- Heigl, S., A. Burkert and A. Hacar: Non-linear dense core formation in the dark cloud L1517. *Mon. Not. R. Astron. Soc.* 463, 4301-4310 (2016).
- Hein Bertelsen, R.P., I. Kamp, G. van der Plas, M.E. van den Ancker, L.B.F.M. Waters, W.-F. Thi and P. Woitke: A proposed new diagnostic for Herbig disc geometry. FWHM versus J of CO ro-vibrational lines. *Astron. Astrophys.* 590, A98 (2016).
- Hein Bertelsen, R.P., I. Kamp, G. van der Plas, M.E. van den Ancker, L.B.F.M. Waters, W.-F. Thi and P. Woitke: Variability in the CO ro-vibrational lines from HD163296. *Mon. Not. R. Astron. Soc.* 458, 1466-1477 (2016).
- Henshaw, J.D., P. Caselli, F. Fontani, I. Jiménez-Serra, J.C. Tan, S.N. Longmore, J.E. Pineda, R.J. Parker and A.T. Barnes: Investigating the structure and fragmentation of a highly filamentary IRDC. *Mon. Not. R. Astron. Soc.* 463, 146-169 (2016).
- Herpin, F., L. Chavarría, T. Jacq, J. Braine, F. van der Tak, F. Wyrowski, E.F. van Dishoeck, A. Baudry, S. Bontemps, L. Kristensen, M. Schmalzl and J. Mata: Herschel-HIFI view of mid-IR quiet massive protostellar objects. *Astron. Astrophys.* 587, A139 (2016).
- Herrera-Camus, R, A. Bolatto, J.D. Smith, B. Draine, E. Pellegrini, M. Wolfire, K. Croxall, I. de Looze, D. Calzetti, R. Kennicutt, A. Crocker, L. Armus, P. van der Werf, K. Sandstrom, M. Galametz, B. Brandl, B. Groves, D. Rigopoulou, F. Walter, A. Leroy, M. Boquien, F.M. Tabatabaei and P. Beirão: The Ionized Gas in Nearby Galaxies as Traced by the [N II] 122 and 205  $\mu$ m Transitions. *Ap. J.* 826, 175-192 (2016).
- Hilchenbach, M., J. Kissel, Y. Langevin, ..., G. Haerendel, ..., H. Höfner, et al.: Comet 67P/Churyumov-Gerasimenko: Close-up on Dust Particle Fragments. *Ap. J. Lett.* 816, L32 (2016).
- Hocuk, S., S. Cazaux, M. Spaans and P. Caselli: How chemistry influences cloud structure, star formation, and the IMF. *Mon. Not. R. Astron. Soc.* 456, 2586-2610 (2016).
- Hofmann, F., J.S. Sanders, K. Nandra, N. Clerc and M. Gaspari: 7.1 keV sterile neutrino constraints from X-ray observations of 33 clusters of galaxies with Chandra ACIS. *Astron. Astrophys.* 592, A112 (2016).
- Hofmann, F., J.S. Sanders, K. Nandra, N. Clerc and M. Gaspari: Thermodynamic perturbations in the X-ray halo of 33 clusters of galaxies observed with Chandra ACIS. *Astron. Astrophys.* 585, A130 (2016).
- Hong, J., V. Antoniou, A. Zezas, F. Haberl, J.J. Drake, P.P. Plucinsky, T. Gaetz, M. Sasaki, B. Williams, K.S. Long, W.P. Blair, P.F. Winkler, N.J. Wright, S. Laycock and A. Udalski: SXP 214: An X-Ray Pulsar in the Small Magellanic Cloud, Crossing the Circumstellar Disk of the Companion. *Ap. J.* 826, 4 (2016).

- Hoyle, B., K. Paech, M.M. Rau, S. Seitz and J. Weller: Tuning target selection algorithms to improve galaxy redshift estimates. *Mon. Not. R. Astron. Soc.* 458, 4498-4511 (2016).
- Huang, J., Y. C.-M. Liu, Z. Qi, B. Klecker, O. Marghita, A.B. Galvin, C.J. Farrugia and X. Li: A Multi-Event Study of the Coincidence of Heliospheric Current Sheet and Stream Interface. *J. Geophys. Res. Space Physics*, 121, 10768-10782, doi: 10.1002/2016JA022842 (2016).
- Huang, J., Y.C.-M. Liu, B. Klecker and Y. Chen: Coincidence of heliospheric current sheet and stream interface: Implications for the origin and evolution of the solar wind. *J. Geophys. Res. (Space Phys.)* 121, 19-29 (2016).
- Hurley, K., D.S. Svinkin, R.L. Apteekar, S.V. Golenetskii, D.D. Frederiks, W. Boynton, I.G. Mitrofanov, D.V. Golovin, A.S. Kozyrev, M.L. Litvak, A.B. Sanin, A. Rau, A. von Kienlin, X. Zhang, V. Connaughton, C. Meegan, T. Cline and N. Gehrels: The Interplanetary Network Response to LIGO GW150914. *Ap. J. Lett.* 829, L12 (2016).
- Husemann, B., T. Urrutia, G.R. Tremblay, M. Krumpe, J. Dexter, G. Busch, F. Combes, S.M. Croom, T.A. Davis, A. Eckart, R.E. McElroy, M. Perez-Torres, M. Powell and J. Scharwächter: The Close AGN Reference Survey (CARS). What is causing Mrk 1018's return to the shadows after 30 years? *Astron. Astrophys.* 593, L9 (2016).
- Hynes, R.I., B.E. Schaefer, Z.A. Baum, C.-C. Hsu, M.L. Cherry and S. Scaringi: Kepler K2 observations of Sco X-1: orbital modulations and correlations with Fermi GBM and MAXI. *Mon. Not. R. Astron. Soc.* 459, 3596-3613 (2016).
- Ibáñez-Mejía, J.C., M.-M. MacLow, R.S. Klessen and C. Baczynski: Gravitational Contraction versus Supernova Driving and the Origin of the Velocity Dispersion-Size Relation in Molecular Clouds. *Ap. J.* 824, 41 (2016).
- Iovino, A., V. Petropoulou, M. Scodreggio, M. Bolzonella, G. Zamorani, S. Bardelli, O. Cucciati, L. Pozzetti, L. Tasca, D. Vergani, E. Zucca, A. Finoguenov, O. Ilbert, M. Tanaka, M. Salvato, K. Kovač and P. Cassata: A high definition view of the COSMOS Wall at  $z \sim 0.73$ . *Astron. Astrophys.* 592, A78 (2016).
- Isern, J., P. Jean, E. Bravo, J. Knödseder, F. Lebrun, E. Churazov, R. Sunyaev, A. Domingo, C. Badenes, D.H. Hartmann, P. Hoeflich, M. Renaud, S. Soldi, N. Elias-Rosa, M. Hernanz, I. Domínguez, D. García-Senz, G.G. Lichti, G. Vedrenne and P.V. Ballmoos: Gamma-ray emission from SN2014J near maximum optical light. *Astron. Astrophys.* 588: A67, pp. 1-11 (2016).
- Ivlev, A.V., V.V. Akimkin and P. Caselli: Ionization and Dust Charging in Protoplanetary Disks. *Ap. J.* 833, 92 (2016).
- Jaffé, Y.L., M.A.W. Verheijen, C.P. Haines, H. Yoon, R. Cybulski, M. Montero-Castaño, R. Smith, A. Chung, B.Z. Deshev, X. Fernández, J. van Gorkom, B.M. Poggianti, M.S. Yun, A. Finoguenov, G.P. Smith and N. Okabe: BUDHIES - III: the fate of H I and the quenching of galaxies in evolving environments. *Mon. Not. R. Astron. Soc.* 461, 1202-1221 (2016).
- Jambor, M., V. Nosenko, S.K. Zhdanov and H.M. Thomas: Plasma crystal dynamics measured with a three-dimensional plenoptic camera. *Rev. Sci. Instruments* 87, 033505 (2016).
- Janssen, A.W., N. Christopher, E. Sturm, S. Veilleux, A. Contursi, E. González-Alfonso, J. Fischer, R. Davies, A. Verma, J. Graciá-Carpio, R. Genzel, D. Lutz, A. Sternberg, L. Tacconi, L. Burtscher and A. Poglitsch: Broad [C II] Line Wings as Tracer of Molecular and Multi-phase Outflows in Infrared Bright Galaxies. *Ap. J.* 822, 43 (2016).
- Jarvis, M., E. Sheldon, J. Zuntz, ..., J.J. Mohr, et al.: The DES Science Verification weak lensing shear catalogues. *Mon. Not. R. Astron. Soc.* 460, 2245-2281 (2016).
- Jensen, T.W., M. Vivek, K.S. Dawson, S.F. Anderson, J. Bautista, D. Bizyaev, W.N. Brandt, J.R. Brownstein, P. Green, D.W. Harris, V. Kamble, I.D. McGreer, A. Merloni, A. Myers, D. Oravetz, K. Pan, I. Pâris, D.P. Schneider, A. Simmons and N. Suzuki: Spectral Evolution in High Redshift Quasars from the Final Baryon Oscillation Spectroscopic Survey Sample. *Ap. J.* 833, 199 (2016).
- Jiménez-Serra, I., A.I. Vasyunin, P. Caselli, N. Marcellino, N. Billot, S. Viti, L. Testi, C. Vastel, B. Lefloch and R. Bachiller: The Spatial Distribution of Complex Organic Molecules in the L1544 Pre-stellar Core. *Ap. J. Lett.* 830, L6 (2016).
- Jin, C., C. Done and M. Ward: Strong constraints on a super-Eddington accretion flow: XMM-Newton observations of an intermediate-mass black hole. *Mon. Not. R. Astron. Soc.*, 455(1), 691-702 (2016).
- Johannsen, T., A.E. Broderick, P.M. Plewa, S. Chatzopoulos, S.S. Doeleman, F. Eisenhauer, V.L. Fish, R. Genzel, O. Gerhard and M.D. Johnson: Testing General Relativity with the Shadow Size of Sgr A\*. *Phys. Rev. Lett.* 116, 031101 (2016).
- Jones, C. F., C. Bernardo, R.M.P. Tanyag, ..., L. Englert, et al.: Coupled motion of Xe clusters and quantum vortices in He nanodroplets. *Physical Review B*, 93(18): 180510, pp. 1-6 (2016).
- Jose, J., M. Asplund, C. Charbonnel, I. Cherkneff, R. Diehl, A. Korn and F.K. Thielemann: On the origin of the cosmic elements and the nuclear history of the universe. *Europhysics News* 47, 4, 15-20 (2016).
- Jóhannesson, G., R. Ruizde Austri, A.C. Vincent, I.V. Moskalenko, E. Orlando, T.A. Porter, A.W. Strong, R. Trotta, F. Feroz, P. Graff and M.P. Hobson: Bayesian Analysis of Cosmic Ray Propagation: Evidence against Homogeneous Diffusion. *Ap. J.* 824, 16 (2016).
- Jørgensen, J.K., M.H.D. van der Wiel, A. Coutens, J.M. Lykke, H.S.P. Müller, E.F. van Dishoeck, H. Calcutt, P. Bjerkeli, T.L. Bourke, M.N. Drozdovskaya, C. Favre, E.C. Fayolle, R.T. Garrod, S.K. Jacobsen, K.I. Öberg, M.V. Persson and S.F. Wampfler: The ALMA Protostellar Interferometric Line Survey (PILS). First results from an unbiased submillimeter wavelength line survey of the Class 0 protostellar binary IRAS 16293-2422 with ALMA. *Astron. Astrophys.* 595, A117 (2016).
- José-García, I. S., J.C. Mottram, E.F. Van Dishoeck, L.E. Kristensen, F.F.S. van der Tak, J. Braine, F. Herpin, D. Johnstone, T.A. van Kempen and F. Wyrowski: Linking low- to high-mass young stellar objects with Herschel-HIFI

- observations of water. *Astron. Astrophys.* 585: A103, pp. 1-30 (2016).
- Kacprzak, T., D. Kirk, O. Friedrich, ..., J.J. Mohr, et al.: Cosmology constraints from shear peak statistics in Dark Energy Survey Science Verification data. *Mon. Not. R. Astron. Soc.* 463, 3653-3673 (2016).
- Kama, M., S. Bruderer, E.F. van Dishoeck, M. Hogerheijde, C.P. Folsom, A. Miotello, D. Fedele, A. Belloche, R. Güsten and F. Wyrowski: Volatile-carbon locking and release in protoplanetary disks. A study of TW Hya and HD 100546. *Astron. Astrophys.* 592, A83 (2016).
- Kama, M., S. Bruderer, M. Carney, M. Hogerheijde, E.F. van Dishoeck, D. Fedele, A. Baryshev, W. Boland, R. Güsten, A. Aikutalp, Y. Choi, A. Endo, W. Frieswijk, A. Karska, P. Klaassen, E. Koumpia, L. Kristensen, S. Leurini, Z. Nagy, J.-P. Perez Beaupuits, C. Risacher, N. van der Marel, T.A. van Kempen, R.J. van Weeren, F. Wyrowski and U.A. Yıldız: Observations and modelling of CO and [C i] in protoplanetary disks. First detections of [C i] and constraints on the carbon abundance. *Astron. Astrophys.* 588, A108 (2016).
- Kavanagh, P.J., M. Sasaki, L.M. Bozzetto, S.D. Points, E.J. Crawford, J. Dickel, M.D. Filipovic, F. Haberl, P. Maggi and E.T. Whelan: Two evolved supernova remnants with newly identified Fe-rich cores in the Large Magellanic Cloud. *Astron. Astrophys.* 586, A4 (2016).
- Keown, J., S. Schnee, T.L. Bourke, J. Di Francesco, R. Friesen, P. Caselli, P. Myers, G. Williger and M. Tafalla: Infall/Expansion Velocities in the Low-mass Dense Cores L492, L694-2, and L1521F: Dependence on Position and Molecular Tracer. *Ap. J.* 833, 97 (2016).
- Kidger, M.R., B. Altieri, T. Müller and J. Gracia: A Search for the Far-Infrared Ghost of C/2010 X1 (Elenin) with Herschel. *Earth Moon and Planets* 117, 101-108 (2016).
- Kim, J.S., C.J. Clarke, M. Fang and S. Facchini: Proplyds Around a B1 Star: 42 Orionis in NGC 1977. *Ap. J. Lett.* 826, L15 (2016).
- Kirk, D., Y. Omori, A. Benoit-Lévy, ..., D. Gruen, ..., J. Weller: Cross-correlation of gravitational lensing from DES Science Verification data with SPT and Planck lensing. *Mon. Not. R. Astron. Soc.* 459, 21-34 (2016).
- Kirk, H., D. Johnstone, J. Di Francesco, J. Lane, J. Buckle, D.S. Berry, H. Broekhoven-Fiene, M.J. Currie, M. Fich, J. Hatchell, T. Jenness, J.C. Mottram, D. Nutter, K. Pattle, J.E. Pineda, C. Quinn, C. Salji, S. Tisi, M.R. Hogerheijde, D. Ward-Thompson, The JCMT Gould Belt Survey Team: The JCMT Gould Belt Survey: Dense Core Clusters in Orion B. *Ap. J.* 821, 98 (2016).
- Kirk, H., J. Di Francesco, D. Johnstone, ..., J.E. Pineda, et al.: The JCMT Gould Belt Survey: A First Look at Dense Cores in Orion B. *Ap. J.* 817, 167 (2016).
- Kiss, C., A. Pál, A.I. Farkas-Takács, G.M. Szabó, R. Szabó, L.L. Kiss, L. Molnár, K. Sárneczky, T.G. Müller, M. Mommert and J. Stansberry: Nereid from space: rotation, size and shape analysis from K2, Herschel and Spitzer observations. *Mon. Not. R. Astron. Soc.* 457, 2908-2917 (2016).
- Kitaura, F.-S., C.-H. Chuang, Y. Liang, C. Zhao, C. Tao, S. Rodríguez-Torres, D.J. Eisenstein, H. Gil-Marín, J.-P. Kneib, C. McBride, W.J. Percival, A.J. Ross, A.G. Sánchez, J. Tinker, R. Tojeiro, M. Vargas-Magana and G.-B. Zhao: Signatures of the Primordial Universe from Its Emptiness: Measurement of Baryon Acoustic Oscillations from Minima of the Density Field. *Phys. Rev. Lett.* 116, 171301 (2016).
- Kitaura, F.-S., S. Rodríguez-Torres, C.-H. Chuang, C. Zhao, F. Prada, H. Gil-Marín, H. Guo, G. Yepes, A. Klypin, C.G. Scóccola, J. Tinker, C. McBride, B. Reid, A.G. Sánchez, S. Salazar-Albornoz, J.N. Grieb, M. Vargas-Magana, A.J. Cuesta, M. Neyrinck, F. Beutler, J. Comparat, W.J. Percival and A. Ross: The clustering of galaxies in the SDSS-III Baryon Oscillation Spectroscopic Survey: mock galaxy catalogues for the BOSS Final Data Release. *Mon. Not. R. Astron. Soc.* 456, 4156-4173 (2016).
- Kompaneets, R., G.E. Morfill and A.V. Ivlev: Interparticle Attraction in 2D Complex Plasmas. *Phys. Rev. Lett.* 116, 125001 (2016).
- Kompaneets, R., G.E. Morfill and A.V. Ivlev: Wakes in complex plasmas: A self-consistent kinetic theory. *Physical Review E* 93, 063201 (2016).
- Kong, S., J.C. Tan, P. Caselli, F. Fontani, T. Pillai, M.J. Butler, Y. Shimajiri, F. Nakamura and T. Sakai: The Deuterium Fraction in Massive Starless Cores and Dynamical Implications. *Ap. J.* 821, 94 (2016).
- Kormendy, J. and K.C. Freeman: Scaling Laws for Dark Matter Halos in Late-type and Dwarf Spheroidal Galaxies. *Ap. J.* 817, 84 (2016).
- Kóspál, Á., P. Ábrahám, T. Csengeri, U. Gorti, T. Henning, A. Moór, D.A. Semenov, L. Szűcs and R. Güsten: Cold CO Gas in the Disk of the Young Eruptive Star EX Lup. *Ap. J. Lett.* 821, L4 (2016).
- Koutoulidis, L., M. Plionis, I. Georgantopoulos, A. Georgakakis, A. Akylas, S. Basilakos and G. Mountrichas: Comparison of spatial and angular clustering of X-ray AGN. *Astron. Astrophys.* 590, A23 (2016).
- Kozlova, A. V., G.L. Israel, D.S. Svinikin, D.D. Frederiks, V.D. Pal'shin, A.E. Tsvetkova, K. Hurley, K., J. Goldsten, D.V. Golovin, I.G. Mitrofanov and X.-L. Zhang: The first observation of an intermediate flare from SGR 1935+2154. *Mon. Not. R. Astron. Soc.*, 460(2), 2008-2014 (2016).
- Krause, M.G.H., C. Charbonnel, N. Bastian and R. Diehl: Gas expulsion in massive star clusters? Constraints from observations of young and gas-free objects. *Astron. Astrophys.* 587, A53 (2016).
- Krawczynski, H.S., D. Stern, F.A. Harrison, ..., J. Dexter, et al.: X-ray polarimetry with the Polarization Spectroscopic Telescope Array (PoSTAR). *Astroparticle Phys.* 75, 8-28 (2016).
- Krips, M., S. Martín, K. Sakamoto, S. Aalto, T.G. Bisbas, A.D. Bolatto, D. Downes, A. Eckart, C. Feruglio, S. García-Burillo, J. Geach, T.R. Greve, S. König, S. Matsushita, R. Neri, S. Offner, A.B. Peck, S. Viti and J. Wagg: ACA [C I] observations of the starburst galaxy NGC 253. *Astron. Astrophys.* 592: L3, pp. 1-5 (2016).

- Krogager, J.-K., J.P.U. Fynbo, P. Noterdaeme, T. Zafar, P. Møller, C. Ledoux, T. Krühler and A. Stockton: A quasar reddened by a sub-parsec-sized, metal-rich and dusty cloud in a damped Lyman  $\alpha$  absorber at  $z = 2.13$ . *Mon. Not. R. Astron. Soc.* 455, 2698-2711 (2016).
- Kronberg, E. A., M.V. Rashev, P.W. Daly, Y.Y. Shprits, D.L. Turner, A. Drozdov, M. Dobynde, A.C. Kellerman, T.A. Fritz, V. Pierrard, K. Borremans, B. Klecker and R. Friedel: Contamination in electron observations of the silicon detector onboard Cluster/RAPID/IES instrument in Earth's radiation belts and ring current. *Space Weather*, 14, 449-462, (2016).
- Kuncarayakti, H., L. Galbany, J.P. Anderson, T. Krühler and M. Hamuy: Unresolved versus resolved: testing the validity of young simple stellar population models with VLT/MUSE observations of NGC 3603. *Astron. Astrophys.* 593, A78 (2016).
- Kühnel, M., S. Falkner, C. Grossberger, R. Ballhausen, T. Dauser, F.-W. Schwarm, I. Kreykenbohm, M.A. Nowak, K. Pottschmidt, C. Ferrigno, R.E. Rothschild, S. Martínez-Núñez, J.M. Torrejón, F. Fürst, D. Klochkov, R. Staubert, P. Kretschmar and J. Wilms: The Goodness of Simultaneous Fits in ISIS. *Acta Polytechnica* 56, 41-46 (2016).
- La Massa, S.M., C.M. Urry, N. Cappelluti, F. Civano, P. Ranalli, E. Glikman, E. Treister, G. Richards, D. Ballantyne, D. Stern, A. Comastri, C. Cardamone, K. Schawinski, H. Böhringer, G. Chon, S.S. Murray, P. Green and K. Nandra: Erratum: Finding rare AGN: XMM-Newton and Chandra observations of SDSS Stripe 82. *Mon. Not. R. Astron. Soc.* 458, 3820-3820 (2016).
- La Massa, S.M., C.M. Urry, N. Cappelluti, H. Böhringer, A. Comastri, E. Glikman, G. Richards, T. Ananna, M. Brusa, C. Cardamone, G. Chon, F. Civano, D. Farrah, M. Gilfanov, P. Green, S. Komossa, P. Lira, M. Makler, S. Marchesi, R. Pecoraro, P. Ranalli, M. Salvato, K. Schawinski, D. Stern, E. Treister and M. Viero: The 31 Deg<sup>2</sup> Release of the Stripe 82 X-Ray Survey: The Point Source Catalog. *Ap. J.* 817, 172 (2016).
- La Massa, S.M., F. Civano, M. Brusa, D. Stern, E. Glikman, S. Gallagher, C.M. Urry, S. Cales, N. Cappelluti, C. Cardamone, A. Comastri, D. Farrah, J.E. Greene, S. Komossa, A. Merloni, T. Mroczkowski, P. Natarajan, G. Richards, M. Salvato, K. Schawinski and E. Treister: On R-W1 as a Diagnostic to Discover Obscured Active Galactic Nuclei in Wide-area X-Ray Surveys. *Ap. J.* 818, 88 (2016).
- Lackington, M, G.A. Fuller, J.E. Pineda, G. Garay, N. Peretto and A. Traficante: Deuteration in infrared dark clouds. *Mon. Not. R. Astron. Soc.* 455, 806-819 (2016).
- Laigle, C., H.J. McCracken, O. Ilbert, ..., M. Salvato, et al.: The COSMOS 2015 Catalog: Exploring the  $1 < z < 6$  Universe with Half a Million Galaxies. *Ap. J. Supp. Ser.* 224, 24 (2016).
- Lange, J.U., P.G. van Dokkum, I.G. Momcheva, E.J. Nelson, J. Leja, G. Brammer, K.E. Whitaker and M. Franx: Evidence for Non-stellar Rest-frame Near-IR Emission Associated with Increased Star Formation in Galaxies at  $z \sim 1$ . *Ap. J. Lett.* 819, L4 (2016).
- Laut, I., S.K. Zhdanov, C. R ath, H.M. Thomas and G.E. Morfill: Anisotropic confinement effects in a two-dimensional plasma crystal. *Physical Review E* 93, 013204 (2016).
- Lavoie, S., J.P. Willis, J. D emocl es, ...; N. Clerc, et al.: The XXL survey XV: evidence for dry merger driven BCG growth in XXL-100-GC X-ray clusters. *Mon. Not. R. Astron. Soc.* 462, 4141-4156 (2016).
- Lee, K. I., M.M. Dunham, P.C. Myers, H.G. Arce, T.L. Bourke, A.A. Goodman, J.K. Jorgensen, L.E. Kristensen, S.S.R. Offner, J.E. Pineda, J.J. Tobin and E.I. Vorobyov: Misalignment of Outflow Axes in the Proto-multiple Systems in Perseus. *Ap. J. Lett.* 820 (2016).
- Lee, K.-G., J.F. Hennawi, M. White, J.X. Prochaska, A. Font-Ribera, D.J. Schlegel, R.M. Rich, N. Suzuki, C.W. Stark, O. Le F evre, P.E. Nugent, M. Salvato and G. Zamorani: Shadow of a Colossus: A  $z = 2.44$  Galaxy Protocluster Detected in 3D Ly $\alpha$  Forest Tomographic Mapping of the COSMOS Field. *Ap. J.* 817, 160 (2016).
- Leistedt, B., H.V. Peiris, F. Elsner, ..., D. Gruen, et al.: Mapping and simulating systematics due to spatially varying observing conditions in DES Science Verification data. *The Astrophysical Journal Supplement Series*, 226(2): 24, pp. 1-13 (2016).
- Lellouch, E., P. Santos-Sanz, S. Fornasier, T. Lim, J. Stansberry, E. Vilenius, C. Kiss, T. M uller, G. Marton, S. Protopapa, P. Panuzzo and R. Moreno: The long-wavelength thermal emission of the Pluto-Charon system from Herschel observations. Evidence for emissivity effects. *Astron. Astrophys.* 588, A2 (2016).
- Lena, D., A. Robinson, T. Storchi-Bergmann, G.S. Couto, A. Schnorr-M uller and R.A. Riffel: Ionized gas kinematics within the inner kiloparsec of the Seyfert galaxy NGC 1365. *Mon. Not. R. Astron. Soc.*, 459(4), 4485-4498 (2016).
- Leroy, A.K., A. Hughes, A. Schrubba, E. Rosolowsky, G. Blanc, A.D. Bolatto, D. Colombo, A. Escala, C. Kramer, J.M.D. Kruijssen, S. Meidt, J. Pety, M. Querejeta, K. Sandstrom, E. Schinnerer, K. Sliwa, A. Usero: A Portrait of Cold Gas in Galaxies at 60pc Resolution and a Simple Method to Test Hypotheses That Link Small-Scale ISM Structure to Galaxy-Scale Processes. *Ap. J.* 831, 16-49 (2016).
- Li, G.-X. and A. Burkert: Constructing multiscale gravitational energy spectra from molecular cloud surface density PDF - interplay between turbulence and gravity. *Mon. Not. R. Astron. Soc.* 461, 3027-3035 (2016).
- Li, J.-T., R. Beck, R.-J. Dettmar, G. Heald, J. Irwin, M. Johnson, A.A. Kepley, M. Krause, E.J. Murphy, E. Orlando, R.J. Rand, A.W. Strong, C.J. Vargas, R. Walterbos, Q.D. Wang and T. Wiegert: CHANG-ES - VI. Probing Supernova energy deposition in spiral galaxies through multiwavelength relationships. *Mon. Not. R. Astron. Soc.* 456, 1723-1738 (2016).
- Li, T.S., D.L. De Poy, J.L. Marshall, ..., D. Gruen, ..., J.J. Mohr, et al.: Assessment of Systematic Chromatic Errors that Impact Sub-1% Photometric Precision in Large-area Sky Surveys. *Astron. J.* 151, 157 (2016).
- Li, T. S., E. Balbinot, N. Mondrik, ..., D. Gruen, et al.: Discovery of a stellar overdensity in Eridanus-Phoenix in the

- Dark Energy Survey. *Ap. J.* 817(2): 135, pp. 1-11 (2016).
- Li, X., T.J. Millar, A.N. Heays, C. Walsh, E.F. van Dishoeck and I. Cherchneff: Chemistry and distribution of daughter species in the circumstellar envelopes of O-rich AGB stars. *Astron. Astrophys.* 588, A4 (2016).
- Li, Z., O. Gerhard, J. Shen, M. Portail and C. Wegg: Gas Dynamics in the Milky Way: A Low Pattern Speed Model. *Ap. J.* 824, 13 (2016).
- Licandro, J., T. Müller, C. Alvarez, V. Alí-Lagoa and M. Delbo: GTC/CanariCam observations of (99942) Apophis. *Astron. Astrophys.* 585: A10, pp. 1-4 (2016).
- Lieu, M., G.P. Smith, P.A. Giles, ..., N. Clerc, et al.: The XXL Survey - IV. Mass-temperature relation of the bright cluster sample. *Astron. Astrophys.* 592: A4, pp. 1-17 (2016).
- Lin, M.-Y., R. Davies, L. Burtscher, A. Contursi, R. Genzel, E. González-Alfonso, J. Graciá-Carpio, A. Janssen, D. Lutz, G. Orban de Xivry, D. Rosario, A. Schnorr-Müller, A. Sternberg, E. Sturm, L. Tacconi: Thick discs, and an outflow, of dense gas in the nuclei of nearby Seyfert galaxies. *Mon. Not. R. Astron. Soc.* 458, 1375-1392 (2016).
- Lin, M.-Y., Y. Hashimoto and S. Foucaud: Role of active galactic nuclei in the luminous infrared galaxy phase at  $z \leq 3$ . *Mon. Not. R. Astron. Soc.* 456, 2735-2748 (2016).
- Lin, M.-Y., R.I. Davies, L. Burtscher, A. Contursi, R. Genzel, E. González-Alfonso, J. Graciá-Carpio, A. Janssen, D. Lutz, G. Orban de Xivry, D. Rosario, A. Schnorr-Müller, A. Sternberg, E. Sturm and L. Tacconi: Thick discs, and an outflow, of dense gas in the nuclei of nearby Seyfert galaxies. *Mon. Not. R. Astron. Soc.* 458, 1375-1392 (2016).
- Lin, Y., H.B. Liu, D. Li, Z. Zhang, A. Ginsburg, J.E. Pineda, L. Qian, R. Galván-Madrid, A.F. McLeod, E. Rosolowsky, J.E. Dale, K. Immer, E. Koch, S. Longmore, D. Walker and L. Testi: Cloud Structure of Galactic OB Cluster-forming Regions from Combining Ground- and Space-based Bolometric Observations. *Ap. J.* 828 (2016).
- Lindgren, L., U. Lammers, U. Bastian, ..., F. Raison, et al.: Gaia Data Release 1. Astrometry: one billion positions, two million proper motions and parallaxes. *Astron. Astrophys.* 595, A4, (2016).
- Lipunov, V.M., J. Gorosabel, M.V. Pruzhinskaya, ..., C. Delvaux, ..., J. Greiner, ..., F. Knust, et al.: The optical identification of events with poorly defined locations: the case of the Fermi GBM GRB 140801A. *Mon. Not. R. Astron. Soc.* 455, 712-724 (2016).
- Liu, Z., A. Merloni, A. Georgakakis, M.-L. Menzel, J. Buchner, K. Nandra, M. Salvato, Y. Shen, M. Brusa and A. Streblyanska: X-ray spectral properties of the AGN sample in the northern XMM-XXL field. *Mon. Not. R. Astron. Soc.* 459, 1602-1625 (2016).
- Longobardi, A., M. Arnaboldi and O. Gerhard: The PN Population in the M87 Halo and the Virgo Cluster Core. *The Universe of Digital Sky Surveys* 42, 237 (2016).
- Lutz, D., S. Berta, A. Contursi, N.M. Förster Schreiber, R. Genzel, J. Graciá-Carpio, R. Herrera-Camus, H. Netzer, E. Sturm, L.J. Tacconi, K. Tadaki and S. Veilleux: The far-infrared emitting region in local galaxies and QSOs: Size and scaling relations. *Astron. Astrophys.* 591, A136 (2016).
- Lykke, J.M., A. Coutens, J.K. Jørgensen, M.H.D. van der Wiel, R.T. Garrod, H.S.P. Müller, P. Bjerkeli, T.L. Bourke, H. Calcutt, M.N. Drozdovskaya, C. Favre, E.C. Fayolle, S.K. Jacobsen, K.I. Öberg, M.V. Persson, E.F. van Dishoeck and S.F. Wampfler: The ALMA-PILS survey: First detections of ethylene oxide, acetone and propanal toward the low-mass protostar IRAS 16293-2422. *Astron. Astrophys.* 597, A53 (2016).
- López-Gonzaga, N., L. Burtscher, K.R.W. Tristram, K. Meisenheimer and M. Schartmann: Mid-infrared interferometry of 23 AGN tori: On the significance of polar-elongated emission. *Astron. Astrophys.* 591, A47 (2016).
- Magee, M. R., R. Kotak, S.A. Sim, ..., T.-W. Chen, et al.: The type Iax supernova, SN 2015H: A white dwarf deflagration candidate. *Astron. Astrophys.* 589: A89, pp. 1-18 (2016).
- Maggi, P., F. Haberl, P.J. Kavanagh, M. Sasaki, L.M. Bozzetto, M.D. Filipovic, G. Vasilopoulos, W. Pietsch, S.D. Points, Y.-H. Chu, J. Dickel, M. Ehle, R. Williams and J. Greiner: The population of X-ray supernova remnants in the Large Magellanic Cloud. *Astron. Astrophys.* 585, A162 (2016).
- Magliocchetti, M., D. Lutz, P. Santini, M. Salvato, P. Popesso, S. Berta and F. Pozzi: The PEP survey: evidence for intense star-forming activity in the majority of radio-selected AGN at  $z \geq 1$ . *Mon. Not. R. Astron. Soc.* 456, 431-447 (2016).
- Mairs, S., D. Johnstone, H. Kirk, ..., J.E. Pineda, et al: The JCMT Gould Belt Survey: a first look at Southern Orion A with SCUBA-2. *Mon. Not. R. Astron. Soc.* 461 (2016).
- Man, A.W.S., T.R. Greve, S. Toft, B. Magnelli, A. Karim, O. Ilbert, M. Salvato, E. Le Floch, F. Bertoldi, C.M. Casey, N. Lee, Y. Li, F. Navarrete, K. Sheth, V. Smolčić, D.B. Sanders, E. Schinnerer and A.W. Zirm: Confirming the Existence of a Quiescent Galaxy Population out to  $z=3$ : A Stacking Analysis of Mid-, Far-Infrared and Radio Data. *Ap. J.* 820, 11 (2016).
- Manara, C.F., G. Rosotti, L. Testi, A. Natta, J.M. Alcalá, J.P. Williams, M. Ansdell, A. Miotello, N. van der Marel, M. Tazzari, J. Carpenter, G. Guidi, G.S. Mathews, I. Oliveira, T. Prusti and E.F. van Dishoeck: Evidence for a correlation between mass accretion rates onto young stars and the mass of their protoplanetary disks. *Astron. Astrophys.* 591, L3 (2016).
- Mandelker, N., D. Padnos, A. Dekel, Y. Birnboim, A. Burkert, M.R. Krumholz and E. Steinberg: Instability of supersonic cold streams feeding galaxies - I. Linear Kelvin-Helmholtz instability with body modes. *Mon. Not. R. Astron. Soc.* 463, 3921-3947 (2016).
- Mantovani, G., K. Nandra and G. Ponti: Relativistic Fe K $\alpha$  line study in Seyfert 1 galaxies observed with Suzaku. *Mon. Not. R. Astron. Soc.* 458, 4198-4209 (2016).
- Marchesi, S., F. Civano, M. Elvis, M. Salvato, M. Brusa, A. Comastri, R. Gilli, G. Hasinger, G. Lanzuisi, T. Miyaji, E. Treister, C.M. Urry, C. Vignali, G. Zamorani, V. Allevato, N. Cappelluti, C. Cardamone, A. Finoguenov, R.E. Grif-

- fiths, A. Karim, C. Laigle, S.M. La Massa, K. Jahnke, P. Ranalli, K. Schawinski, E. Schinnerer, J.D. Silverman, V. Smolcic, H. Suh and B. Trakhtenbrot: The Chandra COSMOS Legacy survey: optical/IR identifications. *Ap. J.* 817, 34 (2016).
- Marchesi, S., F. Civano, M. Salvato, F. Shankar, A. Comastri, M. Elvis, G. Lanzuisi, B. Trakhtenbrot, C. Vignali, G. Zamorani, V. Allevato, M. Brusa, F. Fiore, R. Gilli, R. Griffiths, G. Hasinger, T. Miyaji, K. Schawinski, E. Treister and C.M. Urry: The Chandra COSMOS-Legacy Survey: The  $z > 3$  Sample. *Ap. J.* 827, 150 (2016).
- Marchesi, S., G. Lanzuisi, F. Civano, K. Iwasawa, H. Suh, A. Comastri, G. Zamorani, V. Allevato, R. Griffiths, T. Miyaji, P. Ranalli, M. Salvato, K. Schawinski, J. Silverman, E. Treister, C.M. Urry and C. Vignali: The Chandra COSMOS-Legacy Survey: Source X-Ray Spectral Properties. *Ap. J.* 830, 100 (2016).
- Matter, A., L. Labadie, J.C. Augereau, J. Kluska, A. Crida, A. Carmona, J.F. Gonzalez, W.F. Thi, J.-B. Le Bouquin, J. Olofsson and B. Lopez: Inner disk clearing around the Herbig Ae star HD 139614: Evidence for a planet-induced gap? *Astron. Astrophys.* 586, A11 (2016).
- Mayer, L., T. Peters, J.E. Pineda, J. Wadsley and P. Rogers: Direct Detection of Precursors of Gas Giants Formed by Gravitational Instability with the Atacama Large Millimeter/submillimeter Array. *Ap. J.* 823 (2016).
- Mazzalay, X., J. Thomas, R.P. Saglia, G.A. Wegner, R. Bender, P. Erwin, M.H. Fabricius and S.P. Rusli: The supermassive black hole and double nucleus of the core elliptical NGC 5419. *Mon. Not. R. Astron. Soc.* 462, 2847-2860 (2016).
- Mazzali, P.A., M. Sullivan, E. Pian, J. Greiner and D.A. Kann: Spectrum formation in superluminous supernovae (Type I). *Mon. Not. R. Astron. Soc.* 458, 3455-3465 (2016).
- McClure, M.K., E.A. Bergin, L.I. Cleeves, E.F. van Dishoeck, G.A. Blake, N.J. Evans II, J.D. Green, T. Henning, K.I. Öberg, K.M. Pontoppidan and C. Salyk: Mass Measurements in Protoplanetary Disks from Hydrogen Deuteride. *Ap. J.* 831, 167 (2016).
- McDonald, M., E. Bulbul, T. de Haan, E.D. Miller, B.A. Benson, L.E. Bleem, M. Brodwin, J.E. Carlstrom, I. Chiu, W.R. Forman, J. Hlavacek-Larrondo, G.P. Garmire, N. Gupta, J.J. Mohr, C.L. Reichardt, A. Saro, B. Stalder, A.A. Stark and J.D. Vieira: The Evolution of the Intracluster Medium Metallicity in Sunyaev Zel'dovich-selected Galaxy Clusters at  $0 < z < 1.5$ . *Ap. J.* 826, 124 (2016).
- McGuire, B. A., Marie-Aline Martin-Drumel, Sven Thorwirth, Sandra Brünken, Valerio Lattanzi, Justin L. Neill, Silvia Spezzano, Zhenhong Yu, Daniel P. Zaleski, Anthony J. Remijan, Brooks H. Pate and Michael C. McCarthy : Molecular polymorphism: microwave spectra, equilibrium structures, and an astronomical investigation of the HNCS isomeric family. *PCCP (Physical Chemistry Chemical Physics)* 18, 22693-22705 (2016).
- McGuire, B.A., M.-A. Martin-Drumel, S. Thorwirth, S. Brünken, V. Lattanzi, J.L. Neill, S. Spezzano, Z. Yu, D.P. Zaleski, A. Remijan, B.H. Pate, M.C. McCarthy: Molecular polymorphism: microwave spectra, equilibrium structures, and an astronomical investigation of the HNCS isomeric family. *Physical Chemistry Chemical Physics* 18, 22693-22705 (2016).
- Mehdipour, M., J.S. Kaastra, G.A. Kriss, M. Cappi, P.-O. Petrucci, B. De Marco, G. Ponti, K.C. Steenbrugge, E. Behar, S. Bianchi, G. Branduardi-Raymont, E. Costantini, J. Ebrero, L. Di Gesu, G. Matt, S. Paltani, B.M. Peterson, F. Ursini and M. Whewell: Anatomy of the AGN in NGC 5548. VII. Swift study of obscuration and broadband continuum variability. *Astron. Astrophys.* 588, A139 (2016).
- Melchior, P., E. Sheldon, A. Drlica-Wagner, ..., D. Gruen, et al.: Crowdsourcing quality control for Dark Energy Survey images. *Astronomy and Computing*, 16, 99-108 (2016).
- Menzel, M.-L., A. Merloni, A. Georgakakis, M. Salvato, E. Aubourg, W.N. Brandt, M. Brusa, J. Buchner, T. Dwelly, K. Nandra, I. Pâris, P. Petitjean and A. Schwobe: A spectroscopic survey of X-ray-selected AGNs in the northern XMM-XXL field. *Mon. Not. R. Astron. Soc.* 457, 110-132 (2016).
- Michael, K., T. Antonova, S. Zhdanov and M. Thoma: Wave phenomena in a stratified complex plasma. *IEEE Transactions on Plasma Science*, 44(4), 458-462 (2016).
- Michalowski, M.J., J.M. Castro Cerón, J.L. Wardlow, A. Karska, H. Messias, P. van der Werf, L.K. Hunt, M. Baes, A.J. Castro-Tirado, G. Gentile, J. Hjorth, E. Le Floch, R. Pérez-Martínez, A. Nicuesa Guelbenzu, J. Rasmussen, J.R. Rizzo, A. Rossi, M. Sánchez-Portal, P. Schady, J. Sollerman and D. Xu: GRB 980425 host: [C II], [O I], and CO lines reveal recent enhancement of star formation due to atomic gas inflow. *Astron. Astrophys.* 595, A72 (2016).
- Mignani, R. P., D. Salvetti, A.D. Luca, A. Belfiore, M. Marrelli and W. Becker: Search for binary milli-second pulsars in unidentified Fermi sources. *Memorie della Società Astronomica Italiana*, 87(4), 539-542 (2016).
- Min, M., J. Bouwman, C. Dominik, L.B.F.M. Waters, K.M. Pontoppidan, S. Hony, G.D. Mulders, T. Henning, E.F. van Dishoeck, P. Woitke, N.J. Evans II and The DIGIT Team: The abundance and thermal history of water ice in the disk surrounding HD 142527 from the DIGIT Herschel Key Program. *Astron. Astrophys.* 593, A11 (2016).
- Miniati, F., A. Finoguenov, J.D. Silverman, M. Carollo, A. Cibinel, S.J. Lilly and K. Schawinski: The X-Ray Zurich Environmental Study (X-ZENS). II. X-Ray Observations of the Diffuse Intragroup Medium in Galaxy Groups. *Ap. J.* 819, 26 (2016).
- Minissale, M., F. Dulieu, S. Cazaux and S. Hocuk: Dust as interstellar catalyst. I. Quantifying the chemical desorption process. *Astron. Astrophys.* 585, A24 (2016).
- Miotello, A., E.F. van Dishoeck, M. Kama and S. Bruderer: Determining protoplanetary disk gas masses from CO isotopologues line observations. *Astron. Astrophys.* 594, A85 (2016).
- Molotov, V., H. Thomas, A. Lipaev, V. Naumkin, A.V. Ivlev and S. Khaparak, S: Complex (dusty) plasma research under microgravity conditions: PK-3 Plus Laboratory on the International Space Station. *International Journal of*

- Microgravity Science and Application, 33(3): 320302, pp. 1-8 (2016).
- Momcheva, I. G., G.B. Brammer, P.G. van Dokkum, R.E. Skelton, K.E. Whitaker, E.J. Nelson, M. Fumagalli, M.V. Maseda, J. Leja, M. Franx, H.-W. Rix, R. Bezanson, E. Da Cunha, C. Dickey, N.M. Förster Schreiber, G. Illingworth, M. Kriek, I. Labbé; J.U. Lange, B.F. Lundgren, D. Magee, D. Marchesini, P. Oesch, C. Pacifici, S.G. Patel, S. Price, T. Tal, D.A. Wake, A. van der Wel and S. Wuyts: The 3D-HST Survey: Hubble Space Telescope WFC3/G141 Grism Spectra, Redshifts, and Emission Line Measurements for  $\sim 100,000$  Galaxies. *Ap. J. Suppl. Ser.* 225, 27, (2016).
- Mountrichas, G., A. Georgakakis, M.-L. Menzel, N. Faniidakis, A. Merloni, Z. Liu, M. Salvato and K. Nandra: The clustering amplitude of X-ray-selected AGN at  $z \sim 0.8$ : evidence for a negative dependence on accretion luminosity. *Mon. Not. R. Astron. Soc.* 457, 4195-4204 (2016).
- Muñoz-Darias, T., J. Casares, D. Mata Sánchez, R.P. Fender, M. Armas Padilla, M. Linares, G. Ponti, P.A. Charles, K.P. Mooley and J. Rodriguez: Regulation of black-hole accretion by a disk wind during a violent outburst of V404 Cygni. *Nature* 534, 75-78 (2016).
- Murillo, N.M., E.F. van Dishoeck, J.J. Tobin and D. Fedele: Do siblings always form and evolve simultaneously? Testing the coevality of multiple protostellar systems through SEDs. *Astron. Astrophys.* 592, A56 (2016).
- Müller, T.G., Z. Balog, M. Nielbock, R. Moreno, U. Klaas, A. Moór, H. Linz and H. Feuchtgruber: Far-infrared photometric observations of the outer planets and satellites with Herschel-PACS. *Astron. Astrophys.* 588, A109 (2016).
- Narayana Bhat, P., C.A. Meegan, A. von Kienlin, W.S. Paciesas, M.S. Briggs, J.M. Burgess, E. Burns, V. Chaplin, W.H. Cleveland, A.C. Collazzi, V. Connaughton, A.M. Diekmann, G. Fitzpatrick, M.H. Gibby, M.M. Giles, A.M. Goldstein, J. Greiner, P.A. Jenke, R.M. Kippen, C. Kouveliotou, B. Mailyan, S. McBreen, V. Pelassa, R.D. Preece, O.J. Roberts, L.S. Sparke, M. Stanbro, P. Veres, C.A. Wilson-Hodge, S. Xiong, G. Younes, H.-F. Yu and B. Zhang: The Third Fermi GBM Gamma-Ray Burst Catalog: The First Six Years. *Ap. J. Supp. Ser.* 223, 28 (2016).
- Naumkin, V. N., D.I. Zhukhovitskii, V.I. Molotkov, A.M. Lipaev, V.E. Fortov, H.M. Thomas, P. Huber and G.E. Morfill: Density distribution of a dust cloud in three-dimensional complex plasmas. *Physical Review E*, 94(3): 033204, pp. 1-10 (2016).
- Nataf, D.M., O.A. Gonzalez, L. Casagrande, G. Zasowski, C. Wegg, et al.: Interstellar extinction curve variations towards the inner Milky Way: a challenge to observational cosmology. *Mon. Not. R. Astron. Soc.* 456, 2692-2706 (2016).
- Nelson, E.J., P.G. van Dokkum, I.G. Momcheva, G.B. Brammer, S. Wuyts, M. Franx, N.M. Förster Schreiber, K.E. Whitaker and R.E. Skelton: Spatially Resolved Dust Maps from Balmer Decrements in Galaxies at  $z \sim 1.4$ . *Ap. J. Lett.* 817, L9 (2016).
- Nelson, E.J., P.G. van Dokkum, N.M. Förster Schreiber, M. Franx, G.B. Brammer, I.G. Momcheva, S. Wuyts, K.E. Whitaker, R.E. Skelton, M. Fumagalli, C.C. Hayward, M. Kriek, I. Labbé, J. Leja, H.-W. Rix, L.J. Tacconi, A. van der Wel, F.C. van den Bosch, P.A. Oesch, C. Dickey and J. Ulf Lange: Where Stars Form: Inside-out Growth and Coherent Star Formation from HST H $\alpha$  Maps of 3200 Galaxies across the Main Sequence at  $0.7 < z < 1.5$ . *Ap. J.* 828, 27 (2016).
- Nicholl, M., E. Berger, R. Margutti, R. Chornock, ..., T.-W. Chen, et al.: Superluminous supernova SN 2015bn in the nebular phase: evidence for the engine-powered explosion of a stripped massive star. *The Astrophysical Journal Letters*, 828(2): L18 (2016).
- Nicholl, M., E. Berger, S.J. Smartt, ..., T.W. Chen, et al.: SN 2015bn: a detailed multi-wavelength view of a nearby superluminous supernova. *Ap. J.* 826(1): 39, pp. 1-31 (2016).
- Noiro, G., J. Vernet, C. De Breuck, D. Wylezalek, A. Galametz, D. Stern, S. Mei, M. Brodwin, E.A. Cooke, A.H. Gonzalez, N.A. Hatch, A. Rettura and S.A. Stanford: HST Grism Confirmation of Two  $z \sim 2$  Structures from the Clusters around Radio-loud AGN (CARLA) Survey. *Ap. J.* 830, 90 (2016).
- Nord, B., E. Buckley-Geer, H. Lin, ..., D. Gruen, et al.: Observation and confirmation of six strong-lensing systems in the Dark Energy Survey science verification data. *Ap. J.* 827(1): 51, pp. 1-16 (2016).
- Obermeier, C., J. Koppenhoefer, R.P. Saglia, T. Henning, R. Bender, M. Kodric, N. Deacon, A. Riffeser, W. Burgett, K.C. Chambers, P.W. Draper, H. Flewelling, K.W. Hodapp, N. Kaiser, R.-P. Kudritzki, E.A. Magnier, N. Metcalfe, P.A. Price, W. Sweeney, R.J. Wainscoat and C. Waters: Pan-Planets: Searching for hot Jupiters around cool dwarfs. *Astron. Astrophys.* 587, A49 (2016).
- Obermeier, C., T. Henning, J.E. Schlieder, I.J.M. Crossfield, E.A. Petigura, A.W. Howard, E. Sinukoff, H. Isaacson, D.R. Ciardi, T.J. David, L.A. Hillenbrand, C.A. Beichman, S.B. Howell, E. Horch, M. Everett, L. Hirsch, J. Teske, J.L. Christiansen, S. Lépine, K.M. Aller, M.C. Liu, R.P. Saglia, J. Livingston and M. Kluge: K2 Discovers a Busy Bee: An Unusual Transiting Neptune Found in the Beehive Cluster. *Astron. J.* 152, 223 (2016).
- Ogiya, G. and A. Burkert: Dynamical friction and scratches of orbiting satellite galaxies on host systems. *Mon. Not. R. Astron. Soc.* 457, 2164-2172 (2016).
- Ogiya, G., D. Nagai and T. Ishiyama: Dynamical evolution of primordial dark matter haloes through mergers. *Mon. Not. R. Astron. Soc.*, 461(3), 3385-3396 (2016).
- Pacaud, F., N. Clerc, P.A. Giles, et al.: The XXL Survey - II. The bright cluster sample: catalogue and luminosity function. *Astron. Astrophys.* 592: A2, pp. 1-25 (2016).
- Palmese, A., O. Lahav, M. Banerji, D. Gruen, ..., S. Seitz, et al.: Comparing Dark Energy Survey and HST-CLASH observations of the galaxy cluster RXC J2248.7-4431: implications for stellar mass versus dark matter. *Mon. Not. R. Astron. Soc.* 463, 1486-1499 (2016).
- Papovich, C., H.V. Shipley, N. Mehtens, ..., N. Drory, et al.: The Spitzer-HETDEX Exploratory Large-area Survey. *Ap. J. Supp. Ser.* 224, 28 (2016).



- Pappalardo, C., L. Bizzocchi, J. Fritz, A. Boselli, M. Boquien, S. Boissier, M. Baes, L. Ciesla, S. Bianchi, M. Clemens, S. Viaene, G.J. Bendo, I. De Looze, M.W.L. Smith and J. Davies: The Herschel Virgo Cluster Survey. XIX. Physical properties of low luminosity FIR sources at  $z < 0.5$ . *Astron. Astrophys.* 589, A11 (2016).
- Park, Y., E. Krause, S. Dodelson, ..., D. Gruen, ..., J. Weller, et al.: Joint analysis of galaxy-galaxy lensing and galaxy clustering: Methodology and forecasts for Dark Energy Survey. *Physical Review D* 94, 063533 (2016).
- Pascucci, I., L. Testi, G.J. Herczeg, ..., L. Szűcs, et al.: A Steeper than Linear Disk Mass-Stellar Mass Scaling Relation. *Ap. J.* 831, 125-144 (2016).
- Pattle, K., D. Ward-Thompson, J.M. Kirk, ..., J.E. Pineda, et al.: The JCMT Gould Belt Survey: first results from SCUBA-2 observations of the Cepheus Flare region. *Mon. Not. R. Astron. Soc.* 464 (2016).
- Patton, D. R., F.D. Qamar, S.L. Ellison, A.F.L. Bluck, L. Simard, J.T. Mendel, J. Moreno and P. Torrey: Galaxy pairs in the Sloan Digital Sky Survey – XI. A new method for measuring the influence of the closest companion out to wide separations. *Mon. Not. R. Astron. Soc.*, 461(3), 2589-2604 (2016).
- Perley, D.A., N.R. Tanvir, J. Hjorth, T. Laskar, E. Berger, R. Chary, A. de Ugarte Postigo, J.P.U. Fynbo, T. Krühler, A.J. Levan, M.J. Michalowski and S. Schulze: The Swift GRB Host Galaxy Legacy Survey. II. Rest-frame Near-IR Luminosity Distribution and Evidence for a Near-solar Metallicity Threshold. *Ap. J.* 817, 8 (2016).
- Perley, D.A., T. Krühler, S. Schulze, A. de Ugarte Postigo, J. Hjorth, E. Berger, S.B. Cenko, R. Chary, A. Cucchiara, R. Ellis, W. Fong, J.P.U. Fynbo, J. Gorosabel, J. Greiner, P. Jakobsson, S. Kim, T. Laskar, A.J. Levan, M.J. Michalowski, B. Milvang-Jensen, N.R. Tanvir, C.C. Thöne and K. Wiersema: The Swift Gamma-Ray Burst Host Galaxy Legacy Survey. I. Sample Selection and Redshift Distribution. *Ap. J.* 817, 7 (2016).
- Persson, M.V., D. Harsono, J.J. Tobin, E.F. van Dishoeck, J.K. Jørgensen, N. Murillo and S.-P. Lai: Constraining the physical structure of the inner few 100 AU scales of deeply embedded low-mass protostars. *Astron. Astrophys.* 590, A33 (2016).
- Pierre, M., F. Pacaud, C. Adami, ..., N. Clerc, ..., et al.: The XXL Survey. I. Scientific motivations - XMM-Newton observing plan - Follow-up observations and simulation programme. *Astron. Astrophys.* 592, A1 (2016).
- Pinto, C., A.C. Fabian, A. Ogorzalek, I. Zhuravleva, N. Werner, J. Sanders, Y.-Y. Zhang, L. Gu, J. de Plaa, J. Aho-ranta, A. Finoguenov, R. Johnstone and R.E.A. Canning: Insights into the location and dynamics of the coolest X-ray emitting gas in clusters of galaxies. *Mon. Not. R. Astron. Soc.* 461, 2077-2084 (2016).
- Pizzocaro, D., B. Stelzer, R. Paladini, A. Tiengo, G. Lisini, G. Novara, G. Vianello, A. Belfiore, M. Marelli, D. Salvetti, I. Pillitteri, S. Sciortino, D. D'Agostino, F. Haberl, M. Watson, J. Wilms, R. Salvaterra and A. De Luca: Results from DROXO. IV. EXTrA S discovery of an X-ray flare from the Class I protostar candidate ISO-Oph 85. *Astron. Astrophys.* 587, A36 (2016).
- Planck Collaboration, P.A.R. Ade, N. Aghanim, ..., H. Böhringer, et al.: Planck 2015 results. XXVI. The Second Planck Catalogue of Compact Sources. *Astron. Astrophys.* 594, A26 (2016).
- Planck Collaboration, P.A.R. Ade, N. Aghanim, ..., H. Böhringer, ..., G. Chon, et al.: Planck 2015 results. XXVII. The second Planck catalogue of Sunyaev-Zeldovich sources. *Astron. Astrophys.* 594, A27 (2016).
- Planck Collaboration, P.A.R. Ade, N. Aghanim, M. Arnaud, ..., H. Böhringer, G. Chon, et al.: Planck intermediate results. XXXVI. Optical identification and redshifts of Planck SZ sources with telescopes at the Canary Islands observatories. *Astron. Astrophys.* 586, A139 (2016).
- Planck Collaboration, P.A.R. Ade, N. Aghanim, ..., A.W. Strong, et al.: Planck 2015 results. XXV. Diffuse low-frequency Galactic foregrounds. *Astron. Astrophys.* 594, A25 (2016).
- Planck Collaboration, R. Adam, P.A.R. Ade, ..., A.W. Strong, et al.: Planck intermediate results. XLII. Large-scale Galactic magnetic fields. *Astron. Astrophys.* 596, A103 (2016).
- Planck Collaboration, R. Adam, P.A.R. Ade, N. Aghanim, ..., A.W. Strong, et al.: Planck 2015 results. X. Diffuse component separation: Foreground maps. *Astron. Astrophys.* 594, A10 (2016).
- Planck Collaboration, R. Adam, P.A.R. Ade, N. Aghanim, ..., H. Böhringer, ..., G. Chon, ..., A.W. Strong, et al.: Planck 2015 results. I. Overview of products and scientific results. *Astron. Astrophys.* 594, A1 (2016).
- Plucinsky, P.P., A.P. Beardmore, A. Foster, F. Haberl, E.D. Miller, A.M.T. Pollock and S. Sembay: SNR 1E 0102.2-7219 as an X-ray calibration standard in the 0.5-1.0 keV bandpass and its application to the CCD instruments aboard Chandra, Suzaku, Swift and XMM-Newton. *Astron. Astrophys.* 597, A35 (2016).
- Polshaw, J., R. Kotak, L. Dessart, ..., T.-W. Chen, et al.: A type II-Plateau supernova with a possibly low metallicity progenitor that breaks the standardised candle relation. *Astron. Astrophys.* 588: A1 (2016).
- Pon, A., D. Johnstone, P. Caselli, F. Fontani, A. Palau, M.J. Butler, M. Kaufman, I. Jiménez-Serra and J.C. Tan: Mid-J CO shock tracing observations of infrared dark clouds. II. Low-J CO constraints on excitation, depletion, and kinematics. *Astron. Astrophys.* 587, A96 (2016).
- Pon, A., M.J. Kaufman, D. Johnstone, P. Caselli, F. Fontani, M.J. Butler, I. Jiménez-Serra, A. Palau and J.C. Tan: Mid-J CO Shock Tracing Observations of Infrared Dark Clouds. III. SLED Fitting. *Ap. J.* 827, 107 (2016).
- Ponti, G., C. Jin, B. De Marco, N. Rea, A. Rau, F. Haberl, F. Coti Zelati, E. Bozzo, C. Ferrigno, G.C. Bower and P. Demorest: Swift J174540.7-290015: a new accreting binary in the Galactic Centre. *Mon. Not. R. Astron. Soc.* 461, 2688-2701 (2016).
- Ponti, G., S. Bianchi, T. Muñoz-Darias, K. De, R. Fender and A. Merloni: High ionisation absorption in low mass X-ray binaries. *Astron. Nachr.* 337, 512-517 (2016).

- Pracy, M.B., J.H.Y. Ching, E.M. Sadler, S.M. Croom, I.K. Baldry, J. Bland-Hawthorn, S. Brough, M.J.I. Brown, W.J. Couch, T.M. Davis, M.J. Drinkwater, A.M. Hopkins, M.J. Jarvis, B. Jelliffe, R.J. Jurek, J. Loveday, K.A. Pimblett, M. Prescott, E. Wisnioski and D. Woods: GAMA/WiggleZ: the 1.4 GHz radio luminosity functions of high- and low-excitation radio galaxies and their redshift evolution to  $z = 0.75$ . *Mon. Not. R. Astron. Soc.* 460, 2-17 (2016).
- Prieto, J.L., T. Krühler, J.P. Anderson, L. Galbany, C.S. Kochanek, E. Aquino, J.S. Brown, S. Dong, F. Förster, T.W.-S. Holoien, H. Kuncarayakti, J.C. Maureira, F.F. Rosales-Ortega, S.F. Sánchez, B.J. Shappee and K.Z. Stanek: MUSE Reveals a Recent Merger in the Post-starburst Host Galaxy of the TDE ASASSN-14li. *Ap. J. Lett.* 830, L32 (2016).
- Puglisi, A., G. Rodighiero, A. Franceschini, M. Talia, A. Cimatti, I. Baronchelli, E. Daddi, A. Renzini, K. Schawinski, C. Mancini, J. Silverman, C. Gruppioni, D. Lutz, S. Berta and S.J. Oliver: Dust attenuation in  $z \sim 1$  galaxies from Herschel and 3D-HST H $\alpha$  measurements. *Astron. Astrophys.* 586, A83 (2016).
- Punanova, A., P. Caselli, A. Pon, A. Belloche and P. André: Deuterium fractionation in the Ophiuchus molecular cloud. *Astron. Astrophys.* 587, A118 (2016).
- Pál, A., C. Kiss, T.G. Müller, L. Molnár, R. Szabó, G.M. Szabó, K. Sárnecky and L.L. Kiss: Large Size and Slow Rotation of the Trans-Neptunian Object (225088) 2007 OR<sub>10</sub> Discovered from Herschel and K2 Observations. *Astron. J.* 151, 117 (2016).
- Quénard, D., V. Taquet, C. Vastel, P. Caselli and C. Ceccarelli: Detectability of deuterated water in prestellar cores. *Astron. Astrophys.* 585, A36 (2016).
- Ranalli, P., E. Koulouridis, I. Georgantopoulos, S. Fotopoulou, L.-T. Hsu, M. Salvato, A. Comastri, M. Pierre, N. Cappelluti, F.J. Carrera, L. Chiappetti, N. Clerc, R. Gilli, K. Iwasawa, F. Pacaud, S. Paltani, E. Plionis and C. Vignali: The 2-10 keV unabsorbed luminosity function of AGN from the LSS, CDFS, and COSMOS surveys. *Astron. Astrophys.* 590, A80 (2016).
- Rawle, T.D., B. Altieri, E. Egami, P.G. Pérez-González, F. Boone, B. Clement, R.J. Ivison, J. Richard, W. Rujopakarn, I. Valtchanov, G. Walth, B.J. Weiner, A.W. Blain, M. Dessauges-Zavadsky, J.-P. Kneib, D. Lutz, G. Rodighiero, D. Schaerer and I. Smail: A complete census of Herschel-detected infrared sources within the HST Frontier Fields. *Mon. Not. R. Astron. Soc.* 459, 1626-1645 (2016).
- Reid, B., S. Ho, N. Padmanabhan, ..., A.G. Sánchez, ..., S. Salazar-Albornoz, et al.: SDSS-III Baryon Oscillation Spectroscopic Survey Data Release 12: galaxy target selection and large-scale structure catalogues. *Mon. Not. R. Astron. Soc.* 455, 1553-1573 (2016).
- Riaz, B., E. Vorobyov, D. Harsono, P. Caselli, K. Tikare and O. Gonzalez-Martin: A Multiwavelength Characterization of Proto-brown-dwarf Candidates in Serpens. *Ap. J.* 831, 189 (2016).
- Riffel, R.A., L. Colina, T. Storchi-Bergmann, J. Piqueras López, S. Arribas, R. Riffel, M. Pastoriza, D.A. Sales, N.Z. Dametto, A. Labiano and R.I. Davies: A SINFONI view of the nuclear activity and circumnuclear star formation in NGC 4303. *Mon. Not. R. Astron. Soc.* 461, 4192-4205 (2016).
- Rivers, E., M. Brightman, S. Bianchi, G. Matt, K. Nandra and Y. Ueda: Suzaku confirms NGC 3660 is an unabsorbed Seyfert 2. *Publ. Astron. Soc. Jpn.* 68, S24 (2016).
- Rivilla, V.M., F. Fontani, M.T. Beltrán, A. Vasyunin, P. Caselli, J. Martín-Pintado and R. Cesaroni: The First Detections of the Key Prebiotic Molecule PO in Star-forming Regions. *Ap. J.* 826, 161 (2016).
- Romano, P., E. Bozzo, P. Esposito, B. Sbarufatti, F. Haberl, G. Ponti, P. D'Avanzo, L. Ducci, A. Segreto, C. Jin, N. Masetti, M. Del Santo, S. Campana and V. Mangano: Searching for supergiant fast X-ray transients with Swift. *Astron. Astrophys.* 593, A96 (2016).
- Rosario, D.J., J.T. Mendel, S.L. Ellison, D. Lutz and J.R. Trump: Local SDSS galaxies in the Herschel Stripe 82 survey: a critical assessment of optically derived star formation rates. *Mon. Not. R. Astron. Soc.* 457, 2703-2721 (2016).
- Rosen, S.R., N.A. Webb, M.G. Watson, J. Ballet, D. Barret, V. Braito, F.J. Carrera, M.T. Ceballos, M. Coriat, R. Della Ceca, G. Denkinson, P. Esquej, S.A. Farrell, M. Freyberg, F. Grisé, P. Guillout, L. Heil, F. Koliopanos, D. Law-Green, G. Lamer, D. Lin, R. Martino, L. Michel, C. Motch, A. Nebot Gomez-Moran, C.G. Page, K. Page, M. Page, M.W. Paskull, J. Pye, A. Read, P. Rodriguez, M. Sakano, R. Saxton, A. Schwobe, A.E. Scott, R. Sturm, I. Traulsen, V. Yershov and I. Zolotukhin: The XMM-Newton serendipitous survey. VII. The third XMM-Newton serendipitous source catalogue. *Astron. Astrophys.* 590, A1 (2016).
- Rozo, E., E.S. Rykoff, A. Abate, ..., D. Gruen, ..., J.J. Mohr, et al.: redMaGiC: selecting luminous red galaxies from the DES Science Verification data. *Mon. Not. R. Astron. Soc.* 461, 1431-1450 (2016).
- Ruan, J.J., S.F. Anderson, S.L. Cales, M. Eracleous, P.J. Green, E. Morganson, J.C. Runnoe, Y. Shen, T.D. Wilkinson, M.R. Blanton, T. Dwelly, A. Georgakakis, J.E. Greene, S.M. La Massa, A. Merloni and D.P. Schneider: Toward an Understanding of Changing-look Quasars: An Archival Spectroscopic Search in SDSS. *Ap. J.* 826, 188 (2016).
- Rumble, D., J. Hatchell, K. Pattle, ..., J.E. Pineda, et al.: The JCMT Gould Belt Survey: evidence for radiative heating and contamination in the W40 complex. *Mon. Not. R. Astron. Soc.* 460 (2016).
- Runnoe, J.C., S. Cales, J.J. Ruan, M. Eracleous, S.F. Anderson, Y. Shen, P.J. Green, E. Morganson, S. La Massa, J.E. Greene, T. Dwelly, D.P. Schneider, A. Merloni, A. Georgakakis and A. Roman-Lopes: Now you see it, now you don't: the disappearing central engine of the quasar J1011+5442. *Mon. Not. R. Astron. Soc.* 455, 1691-1701 (2016).
- Russell, H.R., B.R. McNamara, A.C. Fabian, P.E.J. Nulsen, A.C. Edge, F. Combes, N.W. Murray, I.J. Parrish, P. Salomé, J.S. Sanders, S.A. Baum, M. Donahue, R.A. Main, R.W. O'Connell, C.P. O'Dea, J.B.R. Oonk, G. Tremblay, A.N. Vantyghem and G.M. Voit: ALMA observations of cold molecular gas filaments trailing rising radio bub-

- bles in PKS 0745-191. *Mon. Not. R. Astron. Soc.* 458, 3134-3149 (2016).
- Rutkowski, M.J., C. Scarlata, F. Haardt, B. Siana, A. Henry, M. Rafelski, M. Hayes, M. Salvato, A.J. Pahl, V. Mehta, M. Beck, M. Malkan and H.I. Teplitz: Lyman Continuum Escape Fraction of Star-forming Dwarf Galaxies at  $z \sim 1$ . *Ap. J.* 819, 81 (2016).
- Rykoff, E.S., E. Rozo, D. Hollowood, ..., D. Gruen, ..., J.J. Mohr, et al.: The RedMaPPer Galaxy Cluster Catalog from DES Science Verification Data. *Ap. J. Supp. Ser.* 224, 1 (2016).
- Röcker, T.B., S.K. Zhdanov, A.V. Ivlev and G.E. Morfill: Response to "Comment on 'Ion distribution function in a plasma with uniform electric field'" [Phys. Plasmas 23, 084701 (2016)]. *Phys. Plasmas* 23, 084702 (2016).
- Saglia, R.P., M. Opitsch, P. Erwin, J. Thomas, A. Beifiori, M. Fabricius, X. Mazzalay, N. Nowak, S.P. Rusli and R. Bender: The SINFONI Black Hole Survey: The Black Hole Fundamental Plane Revisited and the Paths of (Co)evolution of Supermassive Black Holes and Bulges. *Ap. J.* 818, 47 (2016).
- Saha, K., O. Gerhard and I. Martinez-Valpuesta: Spin-up of massive classical bulges during secular evolution. *Astron. Astrophys.* 588, A42 (2016).
- Saintonge, A., B. Catinella, L. Cortese, R. Genzel, R. Giovanelli, M.P. Haynes, S. Janowiecki, C. Kramer, K.A. Lutz, D. Schiminovich, L.J. Tacconi, S. Wuyts and G. Accurso: Molecular and atomic gas along and across the main sequence of star-forming galaxies. *Mon. Not. R. Astron. Soc.* 462, 1749-1756 (2016).
- Salinas, V.N., M.R. Hogerheijde, E.A. Bergin, L.I. Cleeves, C. Brinch, G.A. Blake, D.C. Lis, G.J. Melnick, O. Pani, J.C. Pearson, L. Kristensen, U.A. Yıldız and E.F. van Dishoeck: First detection of gas-phase ammonia in a planet-forming disk.  $\text{NH}_3$ ,  $\text{N}_2\text{H}^+$ , and  $\text{H}_2\text{O}$  in the disk around TW Hydrae. *Astron. Astrophys.* 591, A122 (2016).
- San José-García, I., J.C. Mottram, E.F. van Dishoeck, L.E. Kristensen, F.F.S. van der Tak, J. Braine, F. Herpin, D. Johnstone, T.A. van Kempen and F. Wyrowski: Linking low- to high-mass young stellar objects with Herschel-HIFI observations of water. *Astron. Astrophys.* 585, A103 (2016).
- Sanders, J.S., A.C. Fabian, G.B. Taylor, H.R. Russell, K.M. Blundell, R.E.A. Canning, J. Hlavacek-Larrondo, S.A. Walker and C.K. Grimes: A very deep Chandra view of metals, sloshing and feedback in the Centaurus cluster of galaxies. *Mon. Not. R. Astron. Soc.* 457, 82-109 (2016).
- Sanders, J.S., A.C. Fabian, H.R. Russell, S.A. Walker and K.M. Blundell: Detecting edges in the X-ray surface brightness of galaxy clusters. *Mon. Not. R. Astron. Soc.* 460, 1898-1911 (2016).
- Santini, P., M. Castellano, A. Fontana, ..., S. Berta, et al.: Characterizing elusive, faint dusty star-forming galaxies: a lensed, optically undetected ALMA galaxy at  $z \sim 3.3$ . *Astron. Astrophys.* 596: A75, pp. 1-8 (2016).
- Santos-Sanz, P., R.G. French, N. Pinilla-Alonso, J. Stansberry, Z.-Y. Lin, Z.-W. Zhang, E. Vilenius, T. Müller, J.L. Ortiz, F. Braga-Ribas, A. Bosh, R. Duffard, E. Lellouch, G. Tancredi, L. Young, S.N. Milam and JWST "Occultations" Focus Group: James Webb Space Telescope Observations of Stellar Occultations by Solar System Bodies and Rings. *Publ. Astron. Soc. Pac.* 128, 018011 (2016).
- Sartoris, B., A. Biviano, C. Fedeli, J.G. Bartlett, S. Borgani, M. Costanzi, C. Giocoli, L. Moscardini, J. Weller, B. Ascaso, S. Bardelli, S. Maurogordato and P.T.P. Viana: Next generation cosmology: constraints from the Euclid galaxy cluster survey. *Mon. Not. R. Astron. Soc.* 459, 1764-1780 (2016).
- Savchenko, V., C. Ferrigno, S. Mereghetti, L. Natalucci, A. Bazzano, E. Bozzo, S. Brandt, T.J.-L. Courvoisier, R. Diehl, L. Hanlon, A. von Kienlin, E. Kuulkers, P. Laurent, F. Lebrun, J.P. Roques, P. Ubertini and G. Weidenspointner: INTEGRAL Upper Limits on Gamma-Ray Emission Associated with the Gravitational Wave Event GW150914. *Ap. J. Lett.* 820, L36 (2016).
- Scaringi, S., C. Knigge and T.J. Maccarone: Retracted Article: Doppler shifts on the spin period of the intermediate polar FO Aqr with K2. *Mon. Not. R. Astron. Soc.* 461, 4531-4531 (2016).
- Scaringi, S., C.F. Manara, S.A. Barenfeld, P.J. Groot, A. Isella, M.A. Kenworthy, C. Knigge, T.J. Maccarone, L. Ricci and M. Ansdell: The peculiar dipping events in the disc-bearing young-stellar object EPIC 204278916. *Mon. Not. R. Astron. Soc.* 463, 2265-2272 (2016).
- Schirmer, M., M. Sangeeta, N.A. Levenson, H. Fu, R.L. Davies, W.C. Keel, P. Torrey, V.N. Bennert, A. Pancoast and J.E.H. Turner: About AGN ionization echoes, thermal echoes and ionization deficits in low-redshift Ly $\alpha$  blobs. *Mon. Not. R. Astron. Soc.* 463, 1554-1586 (2016).
- Schmitt, J.H.M.M., G. Kanbach, A. Rau and H. Steinle: Optical microflaring on the nearby flare star binary UV Ceti. *Astron. Astrophys.* 589, A48 (2016).
- Schnorr-Müller, A., R.I. Davies, K.T. Korista, L. Burtscher, D. Rosario, T. Storchi-Bergmann, A. Contursi, R. Genzel, J. Graciá-Carpio, E.K.S. Hicks, A. Janssen, M. Koss, M.-Y. Lin, D. Lutz, W. Maciejewski, F. Müller-Sánchez, G. Orban de Xivry, R. Riffel, R.A. Riffel, M. Schartmann, A. Sternberg, E. Sturm, L. Tacconi, S. Veilleux and O.A. Ulrich: Constraints on the broad-line region properties and extinction in local Seyferts. *Mon. Not. R. Astron. Soc.* 462, 3570-3590 (2016).
- Schnorr-Müller, A., T. Storchi-Bergmann, A. Robinson, D. Lena and N.M. Nagar: Feeding and feedback in NGC 3081. *Mon. Not. R. Astron. Soc.*, 457(1), 972-985 (2016).
- Schreiber, C., D. Elbaz, M. Pannella, L. Ciesla, T. Wang, A. Koekemoer, M. Rafelski and E. Daddi: Observational evidence of a slow downfall of star formation efficiency in massive galaxies during the past 10 Gyr. *Astron. Astrophys.* 589: A35, pp. 1-21 (2016).
- Schulz, R., A. Kreikenbohm, M. Kadler, R. Ojha, E. Ros, J. Stevens, P.G. Edwards, B. Carpenter, D. Elsässer, N. Gehrels, C. Großberger, H. Hase, S. Horiuchi, J.E.J. Lovell, K. Mannheim, A. Markowitz, C. Müller, C. Phillips, C. Plötz, J. Quick, J. Trüstedt, A.K. Tzioumis and J. Wilms: The gamma-ray emitting radio-loud narrow-line Seyfert 1 galaxy PKS 2004-447. II. The radio view. *Astron. Astro-*

phys. 588, A146 (2016).

Schwarz, K.R., E.A. Bergin, L.I. Cleeves, G.A. Blake, K. Zhang, K.I. Öberg, E.F. van Dishoeck and C. Qi: The Radial Distribution of H<sub>2</sub> and CO in TW Hya as Revealed by Resolved ALMA Observations of CO Isotopologues. *Ap. J.* 823, 91 (2016).

Sembolini, F., G. Yepes, F.R. Pearce, A. Knebe, ..., A.M. Beck, et al.: nIFTy galaxy cluster simulations – I. Dark matter and non-radiative models. *Mon. Not. R. Astron. Soc.*, 457(4), 4063-4080 (2016).

Shimizu, T.T., M. Melendez, R.F. Mushotzky, M.J. Koss, A.J. Barger and L.L. Cowie: Herschel far-infrared photometry of the Swift Burst Alert Telescope active galactic nuclei sample of the local universe - II. SPIRE observations. *Mon. Not. R. Astron. Soc.* 456, 3335-3353 (2016).

Shore, S.N., E. Mason, G.J. Schwarz, F.M. Teyssier, C. Buil, I. De Gennaro Aquino, K.L. Page, J.P. Osborne, S. Scaringi, S. Starrfield, H. van Winckel, R.E. Williams and C.E. Woodward: The panchromatic spectroscopic evolution of the classical CO nova V339 Delphini (Nova Del 2013) until X-ray turnoff. *Astron. Astrophys.* 590, A123 (2016).

Siegert, T., R. Diehl, A.C. Vincent, F. Guglielmetti, M.G.H. Krause and C. Boehm: Search for 511 keV emission in satellite galaxies of the Milky Way with INTEGRAL/SPI. *Astron. Astrophys.* 595, A25 (2016).

Siegert, T., R. Diehl, G. Khachatryan, M.G.H. Krause, F. Guglielmetti, J. Greiner, A.W. Strong and X. Zhang: Gamma-ray spectroscopy of positron annihilation in the Milky Way. *Astron. Astrophys.* 586, A84 (2016).

Siegert, T., R. Diehl, J. Greiner, M.G.H. Krause, A.M. Beloborodov, M.C. Bel, F. Guglielmetti, J. Rodriguez, A.W. Strong and X. Zhang: Positron annihilation signatures associated with the outburst of the microquasar V404 Cygni. *Nature* 531, 341-343 (2016).

Simm, T., M. Salvato, R. Saglia, G. Ponti, G. Lanzuisi, B. Trakhtenbrot, K. Nandra and R. Bender: Pan-STARRS1 variability of XMM-COSMOS AGN. II. Physical correlations and power spectrum analysis. *Astron. Astrophys.* 585, A129 (2016).

Sipilä, O., P. Caselli and V. Taquet: Effect of multilayer ice chemistry on gas-phase deuteration in starless cores. *Astron. Astrophys.* 591, A9 (2016).

Sipilä, O., S. Spezzano and P. Caselli: Understanding the C<sub>3</sub>H<sub>2</sub> cyclic-to-linear ratio in L1544. *Astron. Astrophys.* 591, L1 (2016).

Smartt, S.J., K.C. Chambers, K.W. Smith, ..., T.-W. Chen, et al.: A search for an optical counterpart to the gravitational-wave event GW151226. *The Astrophysical Journal Letters*, 827(2): L40 (2016).

Smartt, S.J., K.C. Chambers, K.W. Smith, ..., T.-W. Chen, et al.: Pan-STARRS and PESSTO search for an optical counterpart to the LIGO gravitational-wave source GW150914. *Mon. Not. R. Astron. Soc.*, 462(4), 4094-4116 (2016).

Smith, G.P., P. Mazzotta, N. Okabe, F. Ziparo, S.L. Mulroy, A. Babul, A. Finoguenov, I.G. McCarthy, M. Lieu, Y.M.

Bahé, H. Bourdin, A.E. Evrard, T. Futamase, C.P. Haines, M. Jauzac, D.P. Marrone, R. Martino, P.E. May, J.E. Taylor and K. Umetsu: LoCuSS: Testing hydrostatic equilibrium in galaxy clusters. *Mon. Not. R. Astron. Soc.* 456, L74-L78 (2016).

Smith, K.L., R.F. Mushotzky, S. Vogel, T.T. Shimizu and N. Miller: Radio Properties of the BAT AGNs: the FIR-radio Relation, the Fundamental Plane, and the Main Sequence of Star Formation. *Ap. J.* 832, 163, (2016).

Smith, M., M. Sullivan, C.B. D'Andrea, ..., D. Gruen, et al.: DES14X3taz: a type I supernova showing a luminous, rapidly cooling initial pre-peak bump. *The Astrophysical Journal Letters*, 818(1): L8, pp. 1-7 (2016).

Smolčić, V., O. Miettinen, N. Tom, G. Zamorani, A. Finoguenov, B.C. Lemaux, M. Aravena, P. Capak, Y.-K. Chiang, F. Civano, I. Delvecchio, O. Ilbert, N. Jurin, A. Karim, C. Laigle, O. Le Fèvre, S. Marchesi, H.J. McCracken, D.A. Riechers, M. Salvato, E. Schinnerer, L. Tasca and S. Toft: (Sub)millimetre interferometric imaging of a sample of COSMOS/AzTEC submillimetre galaxies. III. Environments. *Astron. Astrophys.* 597, A4 (2016).

Snios, B., V. Kharchenko, C.M. Lisse, S.J. Wolk, K. Dennerl and M.R. Combi: Chandra Observations of Comets C/2012 S1 (ISON) and C/2011 L4 (PanSTARRS). *Ap. J.* 818, 199 (2016).

Soares-Santos, M., R. Kessler, E. Berger, ..., D. Gruen, ..., J.J. Mohr, ..., J. Weller, et al.: A Dark Energy Camera Search for an Optical Counterpart to the First Advanced LIGO Gravitational Wave Event GW150914. *Ap. J. Lett.* 823, L33 (2016).

Soergel, B., S. Flender, K.T. Story, ..., D. Gruen, et al.: Detection of the kinematic Sunyaev-Zel'dovich effect with DES Year 1 and SPT. *Mon. Not. R. Astron. Soc.* 461, 3172-3193 (2016).

Soler, J. D., F. Alves, F. Boulanger, A. Bracco, E. Falgarone, G.A.P. Franco, V. Guillet, P. Hennebelle, F. Levrier, P.G. Martin, M. -A. Miville-Deschênes: Magnetic field morphology in nearby molecular clouds as revealed by starlight and submillimetre polarization. *Astron. Astrophys.* 596 (2016).

Sonnerup, B., G. Paschmann, S. Haaland, T. Phan and S. Eriksson: Reconnection layer bounded by switch-off shocks: Dayside magnetopause crossing by THEMIS D.J. *Geophys. Res. (Space Phys.)* 121, 3310-3332 (2016).

Sonnerup, B., S. Haaland, G. Paschmann, T. Phan and S. Eriksson: Magnetopause reconnection layer bounded by switch-off shocks: Part 2. Pressure anisotropy. *J. Geophys. Res. Space Physics*, 121, 9940-9955, doi:10.1002/2016JA023250 (2016).

Spezzano, S., H. Gupta, S. Brünken, C.A. Gottlieb, P. Caselli, K.M. Menten, H.S.P. Müller, L. Bizzocchi, P. Schilke, M.C. McCarthy and S. Schlemmer: A study of the C<sub>3</sub>H<sub>2</sub> isomers and isotopologues: first interstellar detection of HDCCC. *Astron. Astrophys.* 586, A110 (2016).

Spezzano, S., L. Bizzocchi, P. Caselli, J. Harju and S. Brünken: Chemical differentiation in a prestellar core traces non-uniform illumination. *Astron. Astrophys.* 592, L11 (2016).

- Srianand, R., T. Hussain, P. Noterdaeme, P. Petitjean, T. Krühler, J. Japelj, I. Pâris and N. Kashikawa: Detection of emission lines from  $z \sim 3$  DLAs towards the QSO J2358+0149. *Mon. Not. R. Astron. Soc.* 460, 634-649 (2016).
- Stone, M., S. Veilleux, M. Meléndez, E. Sturm, J. Graciá-Carpio and E. González-Alfonso: The Search for Molecular Outflows in Local Volume AGNs with Herschel-PACS. *Ap. J.* 826, 111 (2016).
- Strazzullo, V., E. Daddi, R. Gobat, F. Valentino, M. Panella, M. Dickinson, A. Renzini, G. Brammer, M. Onodera, A. Finoguenov, A. Cimatti, C.M. Carollo and N. Arimoto: The Red Sequence at Birth in the Galaxy Cluster Cl J1449+0856 at  $z = 2$ . *Ap. J. Lett.* 833, L20 (2016).
- Suchyta, E., E.M. Huff, J. Aleksić, ..., D. Gruen, et al.: No galaxy left behind: accurate measurements with the faintest objects in the Dark Energy Survey. *Mon. Not. R. Astron. Soc.*, 457(1), 786-808 (2016).
- Suzuki, T.L., T. Kodama, D. Sobral, A.A. Khostovan, M. Hayashi, R. Shimakawa, Y. Koyama, K.-i. Tadaki, I. Tanaka, Y. Minowa, M. Yamamoto, I. Smail and P.N. Best: [O III] emission line as a tracer of star-forming galaxies at high redshifts: comparison between H $\alpha$  and [O III] emitters at  $z=2.23$  in HiZELS. *Mon. Not. R. Astron. Soc.* 462, 181-189 (2016).
- Szücs, L., S.C.O. Glover and R.S. Klessen: How well does CO emission measure the H $_2$  mass of MCs? *Mon. Not. R. Astron. Soc.* 460, 82-102 (2016).
- Takahashi, H., H. Thomas, V. Molotkov, G. Morfill and S. Adachi: Estimation of plasma parameters in dusty plasmas. *International Journal of Microgravity Science and Application*, 33(4): 320409, pp. 1-5 (2016).
- Tan, J.C., S. Kong, Y. Zhang, F. Fontani, P. Caselli and M.J. Butler: An Ordered Bipolar Outflow from a Massive Early-stage Core. *Ap. J. Lett.* 821, L3 (2016).
- Tanga, M., P. Schady, A. Gatto, J. Greiner, M.G.H. Krause, R. Diehl, S. Savaglio and S. Walch: Soft X-ray absorption excess in gamma-ray burst afterglow spectra: Absorption by turbulent ISM. *Astron. Astrophys.* 595, A24 (2016).
- Taquet, V., K. Furuya, C. Walsh and E.F. van Dishoeck: A primordial origin for molecular oxygen in comets: a chemical kinetics study of the formation and survival of O $_2$  ice from clouds to discs. *Mon. Not. R. Astron. Soc.* 462, S99-S115 (2016).
- Terada, Y., K. Maeda, Y. Fukazawa, A. Bamba, Y. Ueda, S. Katsuda, T. Enoto, T. Takahashi, T. Tamagawa, F.K. Röpkke, A. Summa and R. Diehl: Measurements of the Soft Gamma-Ray Emission from SN2014J with Suzaku. *Ap. J.* 823, 43 (2016).
- Thanjavur, K., L. Simard, A.F.L. Bluck and T. Mendel: Stellar mass functions of galaxies, discs and spheroids at  $z \sim 0.1$ . *Mon. Not. R. Astron. Soc.* 459, 44-69 (2016).
- Thomas, J., C.-P. Ma, N.J. McConnell, J.E. Greene, J.P. Blakeslee and R. Janish: A 17-billion-solar-mass black hole in a group galaxy with a diffuse core. *Nature* 532, 340-342 (2016).
- Thomas, A. D., B.A. Groves, R.S. Sutherland, M.A. Dopita, L.J. Kewley and C. Jin: A physically based model of the ionizing radiation from active galaxies for photoionization modeling. *Ap. J.* 833(2): 266, pp. 1-14 (2016).
- Thorwirth, S., M.A. Martin-Drumel, C.P. Endres, T. Salomon, O. Zingsheim, J. van Wijngaarden, O. Pirali, S. Gruet, F. Lewen, S. Schlemmer, M.C. Mc Carthy: An ASAP treatment of vibrationally excited S $_2$ O: The  $v_3$  mode and the  $v_3 + v_2 - v_2$  hot band. *Journal of Molecular Spectroscopy* 319, 47-49 (2016).
- Todorov, K. O., M.R. Line, J.E. Pineda, M.R. Meyer, S.P. Quanz, S. Hinkley and J.J. Fortney: The Water Abundance of the Directly Imaged Substellar Companion  $\kappa$  and b Retrieved from a Near Infrared Spectrum. *Ap. J.* 823 (2016).
- Trakhtenbrot, B., F. Civano, C.M. Urry, K. Schawinski, S. Marchesi, M. Elvis, D.J. Rosario, H. Suh, J.E. Mejia-Restrepo, B.D. Simmons, A.L. Faisst and M. Onodera: Faint COSMOS AGNs at  $z \sim 3.3$  - I. Black hole properties and constraints on early black hole growth. *Ap. J.* 825(1): 4, pp. 1-17 (2016).
- Tremblay, G.R., J.B.R. Oonk, F. Combes, P. Salomé, C.P. O'Dea, S.A. Baum, G.M. Voit, M. Donahue, B.R. McNamara, T.A. Davis, M.A. McDonald, A.C. Edge, T.E. Clarke, R. Galván-Madrid, M.N. Bremer, L.O.V. Edwards, A.C. Fabian, S. Hamer, Y. Li, A. Maury, H.R. Russell, A.C. Quillen, C.M. Urry, J.S. Sanders and M.W. Wise: Cold, clumpy accretion onto an active supermassive black hole. *Nature* 534, 218-221 (2016).
- Ukwatta, T.N., K. Hurley, J.H. MacGibbon, D.S. Svinikin, R.L. Aptekar, S.V. Golenetskii, D.D. Frederiks, V.D. Pal'shin, J. Goldsten, W. Boynton, A.S. Kozyrev, A. Rau, A. von Kienlin, X. Zhang, V. Connaughton, K. Yamaoka, M. Ohno, N. Ohmori, M. Feroci, F. Frontera, C. Guidorzi, T. Cline, N. Gehrels, H.A. Krimm and J. McTiernan: Investigation of Primordial Black Hole Bursts Using Interplanetary Network Gamma-ray Bursts. *Ap. J.* 826, 98 (2016).
- Umetsu, K., A. Zitrin, D. Gruen, J. Merten, M. Donahue and M. Postman: CLASH: joint analysis of strong-lensing, weak-lensing shear and magnification data for 20 galaxy clusters. *Ap. J.* 821(2): 116, pp. 1-29 (2016).
- Ursini, F., P.-O. Petrucci, G. Matt, S. Bianchi, M. Cappi, B. De Marco, A. De Rosa, J. Malzac and G. Ponti: High-energy monitoring of Seyfert galaxies: The case of NGC 4593. *Astron. Nachr.* 337, 552 (2016).
- Ursini, F., P.-O. Petrucci, G. Matt, S. Bianchi, M. Cappi, B. De Marco, A. De Rosa, J. Malzac, A. Marinucci, G. Ponti and A. Tortosa: High-energy monitoring of NGC 4593 with XMM-Newton and NuSTAR. X-ray spectral analysis. *Mon. Not. R. Astron. Soc.* 463, 382-392 (2016).
- Ursini, F., P.-O. Petrucci, G. Matt, S. Bianchi, M. Cappi, B. De Marco, A. De Rosa, J. Malzac and G. Ponti: High-energy monitoring of Seyfert galaxies: The case of NGC 4593. *Astronomische Nachrichten*, 337(4-5), 552-556 (2016).
- Usachev, A. D., A.V. Zobnin, O.F. Petrov, V.E. Fortov, H. Thoma, M.Y. Pustynnik, M.A. Fink and G.E. Morfill: Elongated dust clouds in a uniform DC positive column of low pressure gas discharge. *Plasma Sources Science and Technology*, 25(3): 035009, pp. 1-8 (2016).

- Valentino, F., E. Daddi, A. Finoguenov, V. Strazzullo, A. Le Brun, C. Vignali, F. Bournaud, M. Dickinson, A. Renzini, M. Béthermin, A. Zanella, R. Gobat, A. Cimatti, D. Elbaz, M. Onodera, M. Pannella, M. Sargent, N. Arimoto, M. Carollo and J.-L. Starck: A Giant Ly $\alpha$  Nebula in the Core of an X-Ray Cluster at  $Z = 1.99$ : Implications for Early Energy Injection. *Ap. J.* 829, 53 (2016).
- Valtonen, M. J., Zola, S., Ciprini, S., ..., T. Schweyer, et al.: Primary black hole spin in OJ 287 AS determined by the general relativity centenary flare. *The Astrophysical Journal Letters*, 819(2): L37, pp. 1-6 (2016).
- van der Marel, N., B.W. Verhaar, S. van Terwisga, B. Merín, G. Herczeg, N.F.W. Ligterink and E.F. van Dishoeck: The (w)hole survey: An unbiased sample study of transition disk candidates based on Spitzer catalogs. *Astron. Astrophys.* 592, A126 (2016).
- van der Marel, N., E.F. van Dishoeck, S. Bruderer, S.M. Andrews, K.M. Pontoppidan, G.J. Herczeg, T. van Kempen and A. Miotello: Resolved gas cavities in transitional disks inferred from CO isotopologs with ALMA. *Astron. Astrophys.* 585, A58 (2016).
- van der Marel, N., P. Cazzoletti, P. Pinilla and A. Garufi: Vortices and Spirals in the HD135344B Transition Disk. *Ap. J.* 832 (2016).
- van der Schot, G., Svenda, M., Maia, ..., N. Kimmel, P. Holl, et al.: Open data set of live cyanobacterial cells imaged using an X-ray laser. *Nature Scientific Data*, 3: 160058 (2016).
- van Kempen, T.A., M.R. Hogerheijde, E.F. van Dishoeck, et al.: Outflow forces in intermediate-mass star formation. *Astron. Astrophys.* 587, A17 (2016).
- Vantghem, A.N., B.R. McNamara, H.R. Russell, M.T. Hogan, A.C. Edge, P.E.J. Nulsen, A.C. Fabian, F. Combes, P. Salomé, S.A. Baum, M. Donahue, R.A. Main, N.W. Murray, R.W. O'Connell, C.P. O'Dea, J.B.R. Oonk, I.J. Parrish, J.S. Sanders, G. Tremblay and G.M. Voit: Molecular Gas Along a Bright H $\alpha$  Filament in 2A 0335+096 Revealed by ALMA. *Ap. J.* 832, 148 (2016).
- Varela, K., H. van Eerten, J. Greiner, P. Schady, J. Elliott, V. Sudilovsky, T. Krühler, A.J. van der Horst, J. Bolmer, F. Knust, C. Agurto, F. Azagra, A. Belloche, F. Bertoldi, C. De Breuck, C. Delvaux, R. Filgas, J.F. Graham, D.A. Kann, S. Klose, K.M. Menten, A. Nicuesa Guelbenzu, A. Rau, A. Rossi, S. Schmidl, F. Schuller, T. Schweyer, M. Tanga, A. Weiss, P. Wiseman and F. Wyrowski: Microphysics and dynamics of the gamma-ray burst 121024A. *Astron. Astrophys.* 589, A37 (2016).
- Vasilopoulos, G., F. Haberl, C. Delvaux, R. Sturm and A. Udalski: Multi-wavelength properties of IGR J05007-7047 (LXP 38.55) and identification as a Be X-ray binary pulsar in the LMC. *Mon. Not. R. Astron. Soc.* 461, 1875-1884 (2016).
- Vasilopoulos, G. and M. Petropoulou: The X-ray dust-scattered rings of the black hole low-mass binary V404 Cyg. *Mon. Not. R. Astron. Soc.*, 455(4), 4426-4441 (2016).
- Verdugo, T., M. Limousin, V. Motta, G.A. Mamon, G. Foëx, F. Gastaldello, E. Jullo, A. Biviano, K. Rojas, R.P. Muñoz, R. Cabanac, J. Magaña, J.G. Fernández-Trincado, L. Adame and M.A. De Leo: Combining strong lensing and dynamics in galaxy clusters: integrating MAMPOSSt within LENSTOOL - I. Application on SL2SJ02140-0535. *Astron. Astrophys.* 595: A30, pp. 1-17 (2016).
- Vogt, N., A. Contreras-Quijada, I. Fuentes-Morales, S. Vogt-Geisse, C. Arcos, C. Abarca, C. Agurto-Gangas, M. Caviedes, H. Da Silva, J. Flores, V. Gotta, F. Peñaloza, K. Rojas and J.I. Villaseñor: Determination of pulsation periods and other parameters of 2875 stars classified as Mira in the All Sky Automated Survey (ASAS). *The Astrophysical Journal Supplement Series*, 227(1): 6, pp. 1-13 (2016).
- Wade, G. A., C. Neiner, E. Alecian, ..., J.D. Bailey, et al.: The MiMeS survey of magnetism in massive stars: introduction and overview. *Mon. Not. R. Astron. Soc.*, 456(1), 2-22 (2016).
- Walcher, C.J., R.M. Yates, I. Minchev, C. Chiappini, M. Bergemann, G. Bruzual, S. Charlot, P.R.T. Coelho, A. Galazzi and M. Martig: Self-similarity in the chemical evolution of galaxies and the delay-time distribution of SNe Ia. *Astron. Astrophys.* 594, A61 (2016).
- Walker, S.A., J.S. Sanders and A.C. Fabian: Applications for edge detection techniques using Chandra and XMM-Newton data: galaxy clusters and beyond. *Mon. Not. R. Astron. Soc.* 461, 684-697 (2016).
- Wang, L., W. Wang, Y. Wu, G. Zhao, Y. Li, A. Luo, C. Liu, Y. Zhang, Y. Hou, Y. Wang and Z. Cao: Calibration of LA-MOST stellar surface gravities using the Kepler asteroseismic data. *The Astronomical Journal*, 152(1): 6, pp. 1-14 (2016).
- Wang, K., L. Testi, A. Burkert, C.M. Walmsley, H. Beuther and T. Henning: A Census of Large-scale ( $\geq 10$  PC), Velocity-coherent, Dense Filaments in the Northern Galactic Plane: Automated Identification Using Minimum Spanning Tree. *Ap. J. Supp. Ser.* 226, 9 (2016).
- Wang, T., D. Elbaz, E. Daddi, A. Finoguenov, D. Liu, C. Schreiber, S. Martín, V. Strazzullo, F. Valentino, R. van der Burg, A. Zanella, L. Ciesla, R. Gobat, A. Le Brun, M. Pannella, M. Sargent, X. Shu, Q. Tan, N. Cappelluti and Y. Li: Discovery of a Galaxy Cluster with a Violently Starbursting Core at  $z = 2.506$ . *Ap. J.* 828, 56 (2016).
- Wang, W.-H., K. Kohno, B. Hatsukade, H. Umehata, I. Aretxaga, D. Hughes, K.I. Caputi, J.S. Dunlop, S. Ikarashi, D. Iono, R.J. Ivison, M. Lee, R. Makiya, Y. Matsuda, K. Motohara, K. Nakanish, K. Ohta, K.-i. Tadaki, Y. Tamura, T. Kodama, W. Rujopakarn, G.W. Wilson, Y. Yamaguchi, M.S. Yun, J. Coupon, B.-C. Hsieh and S. Foucaud: The SXDF-ALMA 2-arcmin<sup>2</sup> Deep Survey: Stacking Rest-frame Near-infrared Selected Objects. *Ap. J.* 833, 195 (2016).
- Ward-Thompson, D., K. Pattle, J.M. Kirk, ..., J.E. Pineda, et al.: The JCMT and Herschel Gould Belt Surveys: a comparison of SCUBA-2 and Herschel data of dense cores in the Taurus dark cloud L1495. *Mon. Not. R. Astron. Soc.* 463 (2016).
- Weber, M., M. Fink, V. Fortov, A. Lipaev, V. Molotkov, G. Morfill, O. Petrov, M. Pustyl'nik, M. Thoma, H. Thomas, A. Usachev and C. Raeth: Assessing particle kinematics

- via template matching algorithms. *Optics Express*, 24(8), 7987-8012 (2016).
- Wegg, C., O. Gerhard and M. Portail: MOA-II Galactic microlensing constraints: the inner Milky Way has a low dark matter fraction and a near maximal disc. *Mon. Not. R. Astron. Soc.* 463, 557-570 (2016).
- Werner, N., I. Zhuravleva, R.E.A. Canning, S.W. Allen, A.L. King, J.S. Sanders, A. Simionescu, G.B. Taylor, R.G. Morris and A.C. Fabian: Deep Chandra study of the truncated cool core of the Ophiuchus cluster. *Mon. Not. R. Astron. Soc.* 460, 2752-2764 (2016).
- Werner, N., J.A. Zu Hone, I. Zhuravleva, Y. Ichinohe, A. Simionescu, S.W. Allen, M. Markevitch, A.C. Fabian, U. Keshet, E. Roediger, M. Ruszkowski and J.S. Sanders: Deep Chandra observation and numerical studies of the nearest cluster cold front in the sky. *Mon. Not. R. Astron. Soc.* 455, 846-858 (2016).
- Wittenmyer, R. A., F. Liu, L. Wang, L. Casagrande, J.A. Johnson and C.G. Tinney: The Pan-Pacific Planet Search - V. Fundamental parameters for 164 evolved stars. *The Astronomical Journal*, 152(1): 19, pp. 1-14 (2016).
- Woitke, P., M. Min, C. Pinte, W.-F. Thi, I. Kamp, C. Rab, F. Antonioz, S. Antonellini, C. Baldovin-Saavedra, A. Carmona, C. Dominik, O. Dionatos, J. Greaves, M. Güdel, J.D. Ilee, A. Liebhart, F. Ménard, L. Rigon, L.B.F.M. Waters, G. Aresu, R. Meijerink and M. Spaans: Consistent dust and gas models for protoplanetary disks. I. Disk shape, dust settling, opacities and PAHs. *Astron. Astrophys.* 586, A103 (2016).
- Wuyts, E., E. Wisnioski, M. Fossati, N.M. Förster Schreiber, R. Genzel, R. Davies, J.T. Mendel, T. Naab, B. Röttgers, D.J. Wilman, S. Wuyts, K. Bandara, A. Beifiori, S. Belli, R. Bender, G.B. Brammer, A. Burkert, J. Chan, A. Galametz, S.K. Kulkarni, P. Lang, D. Lutz, I.G. Momcheva, E.J. Nelson, D. Rosario, R.P. Saglia, S. Seitz, L.J. Tacconi, K.-i. Tadaki, H. Übler and P. van Dokkum: The Evolution of Metallicity and Metallicity Gradients from  $z = 2.7$  to  $0.6$  with KMOS<sup>3D</sup>. *Ap. J.* 827, 74 (2016).
- Wuyts, S., N.M. Förster Schreiber, E. Wisnioski, R. Genzel, A. Burkert, K. Bandara, A. Beifiori, S. Belli, R. Bender, G.B. Brammer, J. Chan, R. Davies, M. Fossati, A. Galametz, S.K. Kulkarni, P. Lang, D. Lutz, J.T. Mendel, I.G. Momcheva, T. Naab, E.J. Nelson, R.P. Saglia, S. Seitz, L.J. Tacconi, K.-i. Tadaki, H. Übler, P.G. van Dokkum, D.J. Wilman and E. Wuyts: KMOS3D: Dynamical Constraints on the Mass Budget in Early Star-forming Disks. *Ap. J.* 831, 149 (2016).
- Xu, B., M. Postman, M. Meneghetti, S. Seitz, A. Zitrin, J. Merten, D. Maoz, B. Frye, K. Umetsu, W. Zheng, L. Bradley, J. Vega and A. Koekemoer: The Detection and Statistics of Giant Arcs behind CLASH Clusters. *Ap. J.* 817, 85 (2016).
- Yamaguchi, Y., Y. Tamura, K. Kohno, I. Aretxaga, J.S. Dunlop, B. Hatsukade, D. Hughes, S. Ikarashi, S. Ishii, R.J. Ivison, T. Izumi, R. Kawabe, T. Kodama, M. Lee, R. Makiya, Y. Matsuda, K. Nakanishi, K. Ohta, W. Rujopakarn, K.-i. Tadaki, H. Umehata, W.-H. Wang, G.W. Wilson, K. Yabe and M.S. Yun: SXDF-ALMA 2 arcmin<sup>2</sup> deep survey: Resolving and characterizing the infrared extragalactic background light down to 0.5 mJy. *Publ. Astron. Soc. Jpn.* 68, 82 (2016).
- Yu, H.-F., R.D. Preece, J. Greiner, P. Narayana Bhat, E. Bissaldi, M.S. Briggs, W.H. Cleveland, V. Connaughton, A. Goldstein, A. von Kienlin, C. Kouveliotou, B. Mailyan, C.A. Meegan, W.S. Paciesas, A. Rau, O.J. Roberts, P. Veres, C. Wilson-Hodge, B.-B. Zhang and H.J. van Eerten: The Fermi GBM gamma-ray burst time-resolved spectral catalog: brightest bursts in the first four years. *Astron. Astrophys.* 588, A135 (2016).
- Yuan, F., A. Jerkstrand, S. Valenti, ..., T.-W. Chen, et al.: 450 d of Type II SN 2013ej in optical and near-infrared. *Mon. Not. R. Astron. Soc.*, 461(2), 2003-2018 (2016).
- Yurchenko, S.O., N.P. Kryuchkov and A.V. Ivlev: Interpolation method for pair correlations in classical crystals. *Journal of Physics Condensed Matter* 28, 235401 (2016).
- Zenteno, A., J.J. Mohr, S. Desai, B. Stalder, A. Saro, J.P. Dietrich, M. Bayliss, S. Bocquet, I. Chiu, A.H. Gonzalez, C. Gangkofner, N. Gupta, J. Hlavacek-Larrondo, M. McDonald, C. Reichardt and A. Rest: Galaxy populations in the 26 most massive galaxy clusters in the South Pole Telescope SPT-SZ survey. *Mon. Not. R. Astron. Soc.* 462, 830-843 (2016).
- Zhang, Y., C. Miller, T. McKay, ..., D. Gruen, et al.: Galaxies in X-Ray Selected Clusters and Groups in Dark Energy Survey Data. I. Stellar Mass Growth of Bright Central Galaxies since  $z \sim 1.2$ . *Ap. J.* 816, 98 (2016).
- Zhao, B., P. Caselli, Z.-Y. Li, R. Krasnopolsky, H. Shang and F. Nakamura: Protostellar disc formation enabled by removal of small dust grains. *Mon. Not. R. Astron. Soc.* 460, 2050-2076 (2016).
- Zhdanov, S., C.-R. Du, M. Schwabe, V. Nosenko, H.M. Thomas and G.E. Morfill: Wake turbulence observed behind an upstream "extra" particle in a complex (dusty) plasma. *EPL (Europhysics Letters)* 114, 55002 (2016).
- Ziparo, F., G.P. Smith, S.L. Mulroy, M. Lieu, J.P. Willis, P. Hudelot, S.L. McGee, S. Fotopoulou, C. Lidman, S. Lavoie, M. Pierre, C. Adami, L. Chiappetti, N. Clerc, P. Giles, B. Maughan, F. Pacaud and T. Sadibekova: The XXL Survey. X. K-band luminosity - weak-lensing mass relation for groups and clusters of galaxies. *Astron. Astrophys.* 592, A9 (2016).
- Zitlau, R., B. Hoyle, K. Paech, J. Weller, M.M. Rau and S. Seitz: Stacking for machine learning redshifts applied to SDSS galaxies. *Mon. Not. R. Astron. Soc.* 460, 3152-3162 (2016).
- Zola, S., Valtonen, M., Bhatta, ..., T. Schweyer, et al.: A search for QPOs in the blazar OJ287: preliminary results from the 2015/2016 observing campaign. *Galaxies*, 4(4): 41 (2016).
- Zorotovic, M., M.R. Schreiber, S.G. Parsons, B.T. Gänsicke, A. Hardy, C. Agurto-Gangas, A.N. Gómez-Morán, A. Rebassa-Mansergas and A.D. Schwobe: Detached cataclysmic variables are crossing the orbital period gap. *Mon. Not. R. Astron. Soc.*, 457(4), 3867-3877 (2016).

## Refereed Proceedings

Bissaldi, E., F. Longo, N. Omodei, G. Vianello and A. v. Kienlin: Gamma-Ray Burst observations with Fermi. *Proceedings of Science, ICRC2015*: 796, 1-8 (2016).

Heidrich-Meisner, V., L. Berger, R.F. Wimmer-Schweingruber, P. Wurz, P. Bochsler, F.M. Ipavich, J.A. Paquette and B. Klecker: FIP effect for minor heavy solar wind ions as seen with SOHO/CELIAS/MTOF. In Proc. of "The Fourteenth International Solar Wind Conference", Weiha, China, 2015. (Eds.) L. Wang, R. Bruno, E. Möbius, A. Vourlidas, G. Zank. AIP. Conf. Proc. 1720, American Institute of Physics, Melville, NY USA, 040004H (2016).

Janitzek, N.P., A. Taut, L. Berger, P. Bochsler, C. Drews, B. Klecker and R.F. Wimmer-Schweingruber: High-time resolution measurements of solar wind heavy ions with SOHO/CELIAS/CTOF. In Proc. of "The Fourteenth International Solar Wind Conference", Weiha, China, 2015. (Eds.) L. Wang, R. Bruno, E. Möbius, A. Vourlidas, G. Zank. AIP. Conf. Proc. 1720, American Institute of Physics, Melville, NY USA, 040006 (2016).

Schönenbach, T., G. Caspar, P.O. Hess, T. Boller, A. Müller, M. Schäfer and W. Greiner: Experimental tests of pseudo-complex General Relativity. In P. Nicolini, M. Kaminski, J. Mureika, & M. Bleicher (Eds.), 1st Karl Schwarzschild Meeting on Gravitational Physics (pp. 111-117). Berlin: Springer (2016).

Taut, A., L. Berger, P. Bochsler, C. Drews, B. Klecker and R.F. Wimmer-Schweingruber: Observations of the He<sup>+</sup> pickup ion torus velocity distribution function with SOHO/CELIAS/CTOF. In Proc. of "The Fourteenth International Solar Wind Conference", Weiha, China, 2015. (Eds.) L. Wang, R. Bruno, E. Möbius, A. Vourlidas, G. Zank. AIP. Conf. Proc. 1720, American Institute of Physics, Melville, NY USA, 050001 (2016).

Yu, J., L. Berger, R.F. Wimmer-Schweingruber, M. Hilchenbach, R. Kallenbach, B. Klecker and J. Guo: Suprathermal helium associated with corotating interaction regions: A case study. In Proc. of "The Fourteenth International Solar Wind Conference", Weiha, China, 2015. (Eds.) L. Wang, R. Bruno, E. Möbius, A. Vourlidas, G. Zank. AIP. Conf. Proc. 1720, American Institute of Physics, Melville, NY USA, 070010 (2016).



## Instrumental Publications

- Abuter, R., R. Dembet, S. Lacour, N. di Lieto, J. Woillez, F. Eisenhauer, P. Fedou and T. Phan Duc: Control bandwidth improvements in GRAVITY fringe tracker by switching to a synchronous real time computer architecture. In Proc. of "Optical and Infrared Interferometry and Imaging V", Edinburgh, UK, 2016. (Eds.) F. Malbet, M.J. Creech-Eakman, P.G. Tuthill. SPIE Conference Proceedings 9907E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990721 (2016).
- Anugu, N., P. Garcia, A. Amorim, E. Wiezorrek, E. Wieprecht, F. Eisenhauer, T. Ott, O. Pfuhl, P. Gordo, G. Perrin, W. Brandner, C. Straubmeier and K. Perraut: GRAVITY acquisition camera: characterization results. In Proc. of "Optical and Infrared Interferometry and Imaging V", Edinburgh, UK, 2016. (Eds.) F. Malbet, M.J. Creech-Eakman, P.G. Tuthill. SPIE Conference Proceedings 9907E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990727 (2016).
- Bavdaz, M., E. Wille, B. Shortt, S. Fransen, M. Collon, N. Barriere, A. Yanson, G. Vacanti, J. Haneveld, C. van Baren, K.-H. Zuknik, F. Christensen, D. Della Monica Ferreira, M. Krumrey, V. Burwitz, G. Pareschi, D. Spiga, G. Valsecchi and D. Vernani: The ATHENA optics development. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990527 (2016).
- Bodendorf, C., A. Bode, N. Geis, D. Penka, F. Grupp and R. Bender: Performance measurement of high precision optical assemblies for cosmological observations: Comparison of different approaches. In: Third European Seminar on Precision Optics Manufacturing. (Eds.) R. Rascher, O. Föhnle, C. Wünsche. SPIE Conference Proceedings 10009, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 100090F (2016).
- Brenneman, L.W., R.K. Smith, J. Bregman, J. Kaastra, N. Brickhouse, R. Allured, A. Foster, S. Wolk, J. Wilms, L. Valencic, R. Willingale, C. Grant, M. Bautz, R. Heilmann, D. Huenemoerder, E. Miller, M. Nowak, M. Schattenburg, N. Schulz, V. Burwitz, K. Nandra, J. Sanders, J. Bookbinder, R. Petre, A. Ptak, A. Smale, D. Burrows, K. Poppenhaeger, E. Costantini, C. De Roo, R. McEntaffer, R. Mushotzky, J.M. Miller and P. Temi: The evolution of structure and feedback with Arcus. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99054P (2016).
- Brucalassi, A., F. Grupp, H. Kellermann, L. Wang, F. Lang-Bardl, N. Baisert, S.M. Hu, U. Hopp and R. Bender: Stability of the FOCES spectrograph using an astro-frequency comb as calibrator. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99085W (2016).
- Burtscher, L., S. Hönig, W. Jaffe, M. Kishimoto, N. Lopez-Gonzaga, K. Meisenheimer and K.R.W. Tristram: Infrared interferometry and AGNs: Parsec-scale disks and dusty outflows. In Proc. of "Optical and Infrared Interferometry and Imaging V", Edinburgh, UK, 2016. (Eds.) F. Malbet, M.J. Creech-Eakman, P.G. Tuthill. SPIE Conference Proceedings 9907E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99070R (2016).
- Carpano, S., J. Wilms and A. Rau: Detectability of exoplanet transits with Athena's WFI instrument: testing for white and correlated noise. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99055G (2016).
- Christou, J.C., G. Brusa, A. Conrad, S. Esposito, T. Herbst, P. Hinz, J.M. Hill, D.L. Miller, S. Rabien, G. Rahmer, G.E. Taylor, C. Veillet and X. Zhang: Adaptive optics capabilities at the Large Binocular Telescope Observatory. In Proc. of "Adaptive Optics Systems V", Edinburgh, UK, 2016. (Eds.) E. Marchetti, L.M. Close, J.P. Véran. SPIE Conference Proceedings 9909E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99092E (2016).
- Civitani, M., S. Basso, M. Ghigo, G. Pareschi, B. Salmaso, D. Spiga, G. Vecchi, R. Banham, E. Breuning, V. Burwitz, G. Hartner and B. Menz: Cold and Hot Slumped Glass Optics with interfacing ribs for high angular resolution x-ray telescopes. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99056U (2016).
- Clénet, Y., T. Buey, G. Rousset, E. Gendron, S. Esposito, Z. Hubert, L. Busoni, M. Cohen, A. Riccardi, F. Chapron, M. Bonaglia, A. Sevin, P. Baudoz, P. Feautrier, G. Zins, D. Gratadour, F. Vidal, F. Chemla, F. Ferreira, N. Doucet, S. Durand, A. Carlotti, C. Perrot, L. Schreiber, M. Lombini, P. Ciliegi, E. Diolaiti, J. Schubert and R. Davies: Joint MLCADO-MAORY SCAO mode: specifications, prototyping, simulations and preliminary design. In Proc. of "Adaptive Optics Systems V", Edinburgh, UK, 2016. (Eds.) E. Marchetti, L.M. Close, J.P. Véran. SPIE Conference Proceedings 9909E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99090A (2016).
- Collon, M.J., G. Vacanti, R. Günther, A. Yanson, N. Barriere, B. Landgraf, M. Vervest, A. Chatbi, R. van der Hoeven, M.W. Beijersbergen, M. Bavdaz, E. Wille, B. Shortt, J. Haneveld, A. Koelewijn, C. van Baren, A. Eigenraam,

- P. Müller, M. Krumrey, V. Burwitz, G. Pareschi, P. Conconi, S. Massahi, F.E. Christensen and G. Valsecchi: Silicon pore optics for the ATHENA telescope. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990528 (2016).
- Costille, A., M. Carle, C. Fabron, E. Prieto, F. Beaumont, N.-C. Jessen, P. Jakobsen, A.N. Sørensen, M.I. Andersen, F. Grupp, T. Maciaszek, A. Ealet, W. Gillard and J.-C. Clemens: How to test NISP instrument for EUCLID mission in laboratory. In Proc. of "Space Telescopes and Instrumentation 2016: Optical, Infrared, and Millimeter Wave", Edinburgh, UK, 2016. (Eds.) H.A. MacEwen, G.G. Fazio, M. Lystrup. SPIE Conference Proceedings 9904E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99042U (2016).
- Davies, R., J. Schubert, M. Hartl, ..., Bender, ..., N. Förster Schreiber, ..., R. Genzel, ..., F. Grupp, ..., M. Haug, ..., U. Hopp, ..., M. Plattner, ..., E. Sturm, J. Thomas, et al.: MICADO: first light imager for the E-ELT. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99081Z (2016).
- de Jong, R.S., S.C. Barden, O. Bellido-Tirado, ..., T. Dwelly, ..., A. Finoguenov, ..., A. Merloni, et al.: 4MOST: the 4-metre Multi-Object Spectroscopic Telescope project at preliminary design review. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99081O (2016).
- De Roo, C.T., R.L. McEntaffer, D.M. Miles, T.J. Peterson, H. Marlowe, J.H. Tutt, B.D. Donovan, B. Menz, V. Burwitz, G. Hartner, R. Allured, R.K. Smith, R. Günther, A. Yanson, G. Vacanti and M. Ackermann: Line spread functions of blazed off-plane gratings operated in the Littrow mounting. *Journal of Astronomical Telescopes, Instruments, and Systems* 2, 025001 (2016).
- Deen, C., J. Kolb, S. Oberti, H. Bonnet, E. Müller, Z. Hubert, G. Zins, F. Delplancke, P. Haguenaue, L. Pettazzi, P. Bourget, M. Suarez-Valles, S. Scheithauer, A. Huber, M. Esselborn, Y. Clenét, E. Gendron, W. Brandner, R. Klein, R. Lenzen, U. Neumann, M. Kulas, J. Panduro, J. Ramos, R.-R. Rohloff, T. Henning, K. Perraut, G. Perrin, C. Straubmeier, A. Amorim and F. Eisenhauer: System tests and on-sky commissioning of the GRAVITY-CIAO wavefront sensors. In Proc. of "Adaptive Optics Systems V", Edinburgh, UK, 2016. (Eds.) E. Marchetti, L.M. Close, J.P. Véran. SPIE Conference Proceedings 9909E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99092M (2016).
- Döhring, T., A.-C. Probst, M. Stollenwerk, M. Wen and L. Proserpio: Development of low-stress Iridium coatings for astronomical x-ray mirrors. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99056V (2016).
- Dwelly, T., A. Merloni, C.J. Walcher, N. Clerc, A. Gueguen, Th. Boller, R.S. de Jong and C. Chiappini: The 4MOST Operations System. In: SPIE Astronomical Telescopes + Instrumentation VI, Edinburgh, United Kingdom, June, 2016. (Eds.) A.B. Peck, R.L. Seaman, C.R. Benn. Proc. SPIE 9910, Observatory Operations: Strategies, Processes, and Systems VI, Vol. 9910, id. 99101Q (2016).
- Fabricius, M., J. Walawender, N. Arimoto, D. Cook, B. Elms, Y. Hashiba, T. Hattori, Y.-S. Hu, I. Iwata, T. Nishimura, K. Omata, P. Tait, N. Takato, I. Tanaka, S.-Y. Wang, M. Weber and M. Wung: Detector upgrade of Subaru's Multi-object Infrared Camera and Spectrograph (MOIRCS). In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990828 (2016).
- Feroci, M., E. Bozzo, S. Brandt, ..., J. Greiner, ..., G. Kanbach, ..., S. Scaringi, et al.: The LOFT mission concept: a status update. In J.-W.-A. Den Herder, T. Takahashi, & M. Bautz (Eds.), *Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray* (pp. 1-20) (2016).
- Fischer, C., A. Bryant, S. Beckmann, S. Colditz, F. Fumi, N. Geis, T. Henning, R. Hönle, C. Iserlohe, R. Klein, A. Krabbe, L.W. Looney, A. Poglitsch, W. Raab, F. Rebell and C. Trinh: Observing with FIFI-LS on SOFIA: time estimates and strategies to use a field imaging spectrometer on an airborne observatory. In A.B. Peck, R.L. Seaman, & C.R. Benn (Eds.), *Observatory Operations: Strategies, Processes, and Systems VI* (pp. 1-11) (2016).
- Fürmetz, M., D. Pietschner and N. Meidinger: Thermal analysis of the WFI on the ATHENA observatory. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99052E (2016).
- Gal, C., H. Thiele, E. Gubbini, A. Mecsaci, A. Kuisl, A. Meister, A. Mottaghbonab, K. Gawlik, M. Dubowy, F. Grupp, A. Bode, C. Wimmer and R. Bender: Optical performance analysis and test results of the EUCLID near-infrared spectro-photometer. In Proc. of "Advances in Optical and Mechanical Technologies for Telescopes and Instrumentation II", Edinburgh, UK, 2016. (Eds.) R. Navarro, J.H. Burge. SPIE Conference Proceedings 9912E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 991216 (2016).
- George, E.M., D. Gräff, H. Feuchtgruber, M. Hartl, F. Eisenhauer, A. Buron, R. Davies, R. Genzel, H. Huber, C. Rau, M. Plattner, E. Wiezorrek, H. Weisz, P. Amico, A. Glindemann, G. Hau and H. Kuntschner: Making SPIFFI SPIFFIER: upgrade of the SPIFFI instrument for use in ERIS and performance analysis from re-commissioning. In Proc. of "Ground-based and Airborne Instrumentation

- on for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99080G (2016).
- Gonté, F., J. Woillez, N. Schuhler, ..., F. Eisenhauer, et al.: VLT interferometer upgrade for the 2nd generation of interferometric instruments. In Proc. of "Optical and Infrared Interferometry and Imaging V", Edinburgh, UK, 2016. (Eds.) F. Malbet, M.J. Creech-Eakman, P.G. Tuthill. SPIE Conference Proceedings 9907E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99071Z (2016).
- Grupp, F., E. Prieto, N. Geis, A. Bode, C. Bodendorf, A. Costille, R. Katterloher, D. Penka and R. Bender: Final tolerancing approach and the value of short-cutting tolerances by measurement. In Proc. of "Space Telescopes and Instrumentation 2016: Optical, Infrared, and Millimeter Wave", Edinburgh, UK, 2016. (Eds.) H.A. MacEwen, G.G. Fazio, M. Lystrup. SPIE Conference Proceedings 9904E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99042M (2016).
- Hill, G.J., S.E. Tuttle, B.L. Vattiat, H. Lee, N. Drory, A. Kelz, J. Ramsey, T.W. Peterson, D.L. De Poy, J.L. Marshall, K. Gebhardt, T. Chonis, G. Dalton, D. Farrow, J.M. Good, D.M. Haynes, B.L. Indahl, T. Jahn, H. Kriel, F. Montesano, H. Nicklas, E. Noyola, T. Prochaska, R.D. Allen, R. Bender, G. Blanc, M.H. Fabricius, S. Finkelstein, M. Landriau, P.J. MacQueen, M.M. Roth, R.D. Savage, J.M. Snigula and H. Anwad: VIRUS: first deployment of the massively replicated fiber integral field spectrograph for the upgraded Hobby-Eberly Telescope. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99081H (2016).
- Kellermann, H., F. Grupp, A. Brucalassi, L. Wang, N. Baisert, F. Lang-Bardl, U. Hopp and R. Bender: Multi-fiber coupling through a miniature lens system into the FOCES spectrograph. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990863 (2016).
- Lang-Bardl, F., R. Bender, C. Goessl, F. Grupp, H.-J. Hess, J. Kaminski, K. Hodapp, U. Hopp, S. Jacobson, H. Kravcar, A. Monna, W. Mitsch, J. Schlichter and M. Wegner: The Wendelstein three channel imager (3KK): alignment, commissioning, and first results. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990844 (2016).
- Lippa, M., S. Gillissen, N. Blind, Y. Kok, Ş. Yazıcı, J. Weber, O. Pfuhl, M. Haug, S. Kellner, E. Wieprecht, F. Eisenhauer, R. Genzel, O. Hans, F. Haußmann, D. Huber, T. Kratschmann, T. Ott, M. Plattner, C. Rau, E. Sturm, I. Waisberg, E. Wiezorrek, G. Perrin, K. Perraut, W. Brandner, C. Straubmeier and A. Amorim: The metrology system of the VLTI instrument GRAVITY. In Proc. of "Optical and Infrared Interferometry and Imaging V", Edinburgh, UK, 2016. (Eds.) F. Malbet, M.J. Creech-Eakman, P.G. Tuthill. SPIE Conference Proceedings 9907E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990722 (2016).
- Maciaszek, T., A. Ealet, K. Jahnke, ..., F. Grupp, C. Wimmer, et al.: Euclid Near Infrared Spectrometer and Photometer instrument concept and first test results obtained for different breadboards models at the end of phase C. In Proc. of "Space Telescopes and Instrumentation 2016: Optical, Infrared, and Millimeter Wave", Edinburgh, UK, 2016. (Eds.) H.A. MacEwen, G.G. Fazio, M. Lystrup. SPIE Conference Proceedings 9904E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99040T (2016).
- Madarasz, E., L. Proserpio, E. Breunig and P. Friedrich: Analysis on the use of vacuum oven for the indirect slumping of glass x-ray mirror segments. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990570 (2016).
- Massari, D., G. Fiorentino, E. Tolstoy, A. McConnachie, R. Stuik, L. Schreiber, D. Andersen, Y. Clénet, R. Davies, D. Gratadour, K. Kuijken, R. Navarro, J.-U. Pott, G. Rodeghiero, P. Turri and G. Verdoes Kleijn: High-precision astrometry towards ELTs. In Proc. of "Adaptive Optics Systems V", Edinburgh, UK, 2016. (Eds.) E. Marchetti, L.M. Close, J.P. Véran. SPIE Conference Proceedings 9909E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99091G (2016).
- Mehrgan, L.H., G. Finger, F. Eisenhauer and J. Panduro: GRAVITY detector systems. In Proc. of "Optical and Infrared Interferometry and Imaging V", Edinburgh, UK, 2016. (Eds.) F. Malbet, M.J. Creech-Eakman, P.G. Tuthill. SPIE Conference Proceedings 9907E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99072F (2016).
- Meidinger, N., J. Eder, T. Eraerds, K. Nandra, D. Pietschner, M. Plattner, A. Rau and R. Strecker: The wide field imager instrument for Athena. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99052A (2016).
- Mieda, E., M. Rosensteiner, M. van Kooten, J.-P. Veran, O. Lardiere and G. Herriot: Testing the pyramid truth wavefront sensor for NFIRAOS in the lab. In Proc. of "Adaptive Optics Systems V", Edinburgh, UK, 2016. (Eds.) E. Marchetti, L.M. Close, J.P. Véran. SPIE Conference Proceedings 9909E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99091J (2016).
- Mottaghbonab, A., H. Thiele, E. Gubbini, M. Dubowy, C. Gal, A. Mecsaci, K. Gawlik, M. Vongehr, F. Grupp,

- D. Penka, C. Wimmer and R. Bender: Gluing interface qualification test results and gluing process development of the EUCLID near-infrared spectro-photometer optical assembly. In Proc. of "Advances in Optical and Mechanical Technologies for Telescopes and Instrumentation II", Edinburgh, UK, 2016. (Eds.) R. Navarro, J.H. Burge. SPIE Conference Proceedings 9912E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 991260 (2016).
- Müller-Seidlitz, J., R. Andritschke, A. Bähr, N. Meidinger, S. Ott, R.H. Richter, W. Treberspurg and J. Treis: Spectroscopic performance of DEPFET active pixel sensor prototypes suitable for the high count rate Athena WFI detector. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990567 (2016).
- Nicklas, H. E., H. Anwand-Heerwart, J. Schubert and P. Rhode: MICADO: the camera support structure at the E-ELT Nasmyth focus. In C.J. Evans, L. Simard, & H. Takami (Eds.), *Ground-based and Airborne Instrumentation for Astronomy VI* (pp. 1-6) (2016).
- Orban de Xivry, G., S. Rabien, W. Gässler, M. Bonaglia, J. Borelli, M. Deysenroth, S. Esposito, A. Puglisi, W. Raab, G. Rahmer, H. Gemperlein, M. Kulas, M. Lefebvre, T. Mazzoni, D. Peter, A. Sivitilli, J. Storm, J. Ziegler: First on-sky results with ARGOS at LBT. In Proc. of "Adaptive Optics Systems V", Edinburgh, UK, 2016. (Eds.) E. Marchetti, L.M. Close, J.P. Véran. SPIE Conference Proceedings 9909E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990936 (2016).
- Ott, S., A. Bähr, W.A. Brand, T. Dauser, N. Meidinger, M. Plattner and W. Stechele: New evaluation concept of the Athena WFI camera system by emulation of X-ray DEPFET detectors. *Journal of Instrumentation*, 11(1): C01028, 1-9 (2016).
- Pearson, D., W. Taylor, R. Davies, M. MacIntosh, D. Henry, D. Lunney, C. Waring, X. Gao, J. Lightfoot, A.M. Glauser, S.P. Quanz, M.R. Meyer, H.M. Schmid, S. March, W. Bachmann, H. Feuchtgruber, E. George, E. Sturm, B. Biller, S. Hinckley, M. Kenworthy, P. Amico, A. Glindemann, M. Kasper, H. Kuntschner, R. Dorn and S. Egner: NIX, the imager for ERIS: the AO instrument for the VLT. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99083F (2016).
- Perinati, E., T. Mineo, M. Freyberg, S. Diebold, A. Santangelo and C. Tenzer: An updated approach to the study of proton propagation in the eROSITA mirror system. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990552 (2016).
- Plattner, M., S. Albrecht, J. Bayer, S. Brandt, P. Drumm, O. Hälker, F. Kerschbaum, A. Koch, I. Kuvvetli, N. Meidinger, S. Ott, R. Ottensamer, J. Reiffers, T. Schanz, K. Skup, M. Steller, C. Tenzer and C. Thomas: WFI electronics and on-board data processing. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99052D (2016).
- Predehl, P., R. Andritschke, V. Babushkin, W. Becker, W. Bornemann, H. Bräuninger, H. Brunner, T. Boller, V. Burwitz, W. Burkert, N. Clerc, E. Churazov, D. Coutinho, K. Dennerl, T. Dwelly, J. Eder, V. Emberger, M. Freyberg, P. Friedrich, M. Fürmetz, A. Georgakakis, M. Gilfanov, C. Grossberger, F. Haberl, O. Hälker, G. Hartner, A.V. Kienlin, W. Kink, I. Kreykenbohm, G. Lamer, I. Lomakin, I. Lapshov, N. Meidinger, A. Merloni, B. Mican, S. Müller, K. Nandra, M. Pavlinsky, E. Pfeffermann, D. Pietschner, J. Robrade, M. Salvato, A. Santangelo, M. Sasaki, H. Scheuerle, J. Schmitt, A. Schwobe, R. Sunyaev, C. Tenzer, V. Yaroshenko and J. Wilms: eROSITA on SRG. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99051K (2016).
- Probst, R.A., G. Lo Curto, G. Ávila, A. Brucalassi, B.L. Canto Martins, I. de Castro Leão, M. Esposito, J.I. González Hernández, F. Grupp, T.W. Hänsch, R. Holzwarth, H. Kellermann, F. Kerber, O. Mandel, A. Manescau, L. Pasquini, E. Pozna, R. Rebolo, J. Renande Medeiros, S.P. Stark, T. Steinmetz, A. Suárez Mascareño, T. Udem, J. Urrutia and Y. Wu: Relative stability of two laser frequency combs for routine operation on HARPS and FOCES. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990864 (2016).
- Proserpio, L., M. Wen, E. Breunig, V. Burwitz, P. Friedrich and E. Madarasz: Indirect slumping of D263 glass on Fused Silica mould. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99056Y (2016).
- Pustynnik, M. Y., M.A. Fink, V. Nosenko, T. Antonova, T. Hagl, H.M. Thomas, A.V. Zobnin, A.M. Lipaev, A.D. Usachev, V.I. Molotkov, O.F. Petrov, V.E. Fortov, C. Rau, C. Deysenroth, S. Albrecht, M. Kretschmer, M.H. Thoma, G.E. Morfill, R. Seurig, A. Stettner, V.A. Alyamovskaya, A. Orr, E. Kufner, E.G. Lavrenko, G.I. Padalka, E.O. Serova, A.M. Samokutyayev and S. Christoforetti: Plasmakristall-4: New complex (dusty) plasma laboratory on board the International Space Station. *Review of Scientific Instruments*, 87(9): 093505, pp. 1-16 (2016).
- Rataj, M., S. Polak, T. Palgan, T. Kamiński, A. Pilch, J.

- Eder, N. Meidinger, M. Plattner, M. Barbera, G. Parodi and F. D'Anca: The filter and calibration wheel for the ATHE-NA wide field imager. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990568 (2016).
- Rau, A., K. Nandra, J. Aird, A. Comastri, T. Dauser, A. Merloni, G.W. Pratt, T.H. Reiprich, A.C. Fabian, A. Georgakakis, M. Güdel, A. Ró.Za\`nska, J.S. Sanders, M. Sasaki, S. Vaughan, J. Wilms and N. Meidinger: Athena Wide Field Imager key science drivers. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99052B (2016).
- Rebell, F., S. Beckmann, A. Bryant, S. Colditz, C. Fischer, F. Fumi, R. Hoenle, N. Geis, C. Iserlohe, R. Klein, A. Krabbe, L. Looney, A. Poglitsch, W. Raab and M. Savage: FI-FI-LS diffraction grating vibration on SOFIA. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99082D (2016).
- Scheithauer, S., W. Brandner, C. Deen, T. Adler, H. Bonnet, P. Bourget, F. Chemla, Y. Clenet, F. Delplancke, M. Ebert, F. Eisenhauer, M. Esselborn, G. Finger, E. Gendron, A. Glauser, F. Gonte, T. Henning, S. Hippler, A. Huber, Z. Hubert, G. Jakob, L. Jochum, L. Jocou, S. Kendrew, R. Klein, J. Kolb, M. Kulas, W. Laun, R. Lenzen, M. Mellein, E. Müller, J. Moreno-Ventas, U. Neumann, S. Oberti, J. Ott, L. Pallanca, J. Panduro, J. Ramos, M. Riquelme, R.-R. Rohloff, G. Rousset, N. Schuhler, M. Suarez and G. Zins: CIAO: wavefront sensors for GRAVITY. In Proc. of "Adaptive Optics Systems V", Edinburgh, UK, 2016. (Eds.) E. Marchetti, L.M. Close, J.P. Véran. SPIE Conference Proceedings 9909E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99092L (2016).
- Schlee, S., G. Weidenspointner, D. Moch, M. Kuster and M. Porro: Methods for calibrating the gain and offset of the DSSC detector for the European XFEL using X-ray line sources. *Journal of Instrumentation*, 11(1): C01001, 1-1 (2016).
- Smith, R.K., M.H. Abraham, R. Allured, ..., V. Burwitz, ..., K. Nandra, ..., J. Sanders, et al.: Arcus: the x-ray grating spectrometer explorer. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99054M (2016).
- Snigula, J.M., C. Gössl, M. Kodric, A. Riffeser, M. Wegner and J. Schlichter: Wendelstein Observatory control software. In Proc. of "Software and Cyberinfrastructure for Astronomy IV", Edinburgh, UK, 2016. (Eds.) G. Chiozzi, J.C. Guzman. SPIE Conference Proceedings 9913E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99132G (2016).
- Soffitta, P., R. Bellazzini, E. Bozzo, V. Burwitz, ..., K. Nandra, ..., W. Becker, et al.: XIPE: the x-ray imaging polarimetry explorer. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990515 (2016).
- Tamura, N., N. Takato, A. Shimono, ..., M. Fabricius, et al.: Prime Focus Spectrograph (PFS) for the Subaru telescope: overview, recent progress, and future perspectives. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99081M (2016).
- Tatischeff, V., M. Tavani, P. von Ballmoos, ..., R. Diehl, ..., G. Kanbach, et al.: The e-ASTROGAM gamma-ray space mission. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99052N (2016).
- Treberspurge, W., R. Andritschke, A. Bähr, D. Bianchi, A. Koch, N. Meidinger, J. Müller-Seidlitz, S. Ott and M. Porro: Studies of prototype DEPFET sensors for the wide field imager of Athena. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99052C (2016).
- Tuttle, S.E., G.J. Hill, B.L. Vattiat, H. Lee, N. Drory, A. Kelz, J. Ramsey, T. Peterson, E. Noyola, D.L. De Poy, J.L. Marshall, T.S. Chonis, G. Dalton, M. Fabricius, D. Farrow, J.M. Good, D.M. Haynes, B. Indahl, T. Jahn, H. Kriel, H. Nicklas, F. Montesano, T. Prochaska, R.D. Allen, M. Landriau, P.J. MacQueen, M.M. Roth, R. Savage and J.M. Snigula: VIRUS early installation and commissioning. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99081I (2016).
- Walawender, J., M. Wung, M. Fabricius, I. Tanaka, N. Arimoto, D. Cook, B. Elms, Y. Hashiba, Y.-S. Hu, I. Iwata, T. Nishimura, K. Omata, N. Takato, S.-Y. Wang and M. Weber: The nuMOIRCS project: detector upgrade overview and early commissioning results. In Proc. of "Ground-based and Airborne Instrumentation for Astronomy VI", Edinburgh, UK, 2016. (Eds.) C.J. Evans, L. Simard, H. Takami. SPIE Conference Proceedings 9908E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99082G (2016).
- Walcher, C.J., R.S. de Jong, T. Dwelly, O. Bellido, Th. Boller, C. Chiappini, S. Feltzing, M. Irwin, R. McMahan,

A. Merloni, O. Schnurr, N.A. Walton: 4MOST: science operations for a large spectroscopic survey program with multiple science cases executed in parallel. In: SPIE Astronomical Telescopes + Instrumentation VI, Edinburgh, United Kingdom, June, 2016. (Eds.) A.B. Peck, R.L. Seaman, C.R. Benn. SPIE Conference Proceedings 9910E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99101N (2016).

Wang, L., F. Grupp, H. Kellermann, A. Brucalassi, J. Schlichter, U. Hopp and R. Bender: A new generation of spectral extraction and analysis package for Fiber Optics Cassegrain Echelle Spectrograph (FOCES). In Proc. of "Software and Cyberinfrastructure for Astronomy IV", Edinburgh, UK, 2016. (Eds.) G. Chiozzi, J.C. Guzman. SPIE Conference Proceedings 9913E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99133O (2016).

Wen, M., L. Proserpio, E. Breunig, P. Friedrich, V. Burwitz and E. Madarasz: Progress in the indirect slumping technology development at MPE for lightweight x-ray optics. In M.K. Cho, & B. Fan (Eds.), 8th International Symposium on Advanced Optical Manufacturing and Testing Technologies: Large Mirrors and Telescopes (pp. 1-6) (2016).

Wuillez, J., J. Alonso, J.-P. Berger, H. Bonnet, W.-J. de Wit, S. Egner, F. Eisenhauer, F. Gonté, S. Guieu, P. Haugener, A. Mérand, L. Pettazzi, S. Poupar, M. Schöller

and N. Schuhler: The 2nd generation VLTI path to performance. In Proc. of "Optical and Infrared Interferometry and Imaging V", Edinburgh, UK, 2016. (Eds.) F. Malbet, M.J. Creech-Eakman, P.G. Tuthill. SPIE Conference Proceedings 9907E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 990706 (2016).

Zane, S., B. Winter, C. Theobalds, ..., V. Burwitz, ..., K. Nandra, et al.: The on-board calibration system of the X-ray Imaging Polarimetry Explorer (XIPE). In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99054H (2016).

Zhang, S.N., M. Feroci, A. Santangelo, Y.W. Dong, H. Feng, F.J. Lu, K. Nandra, Z.S. Wang, S. Zhang, E. Bozzo, S. Brandt, A. De Rosa, L.J. Gou, M. Hernanz, M. van der Klis, X.D. Li, Y. Liu, P. Orleanski, G. Pareschi, M. Pohl, J. Poutanen, J.L. Qu, S. Schanne, L. Stella, P. Uttley and A. Watts: eXTP: Enhanced X-ray Timing and Polarization mission. In Proc. of "Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray", Edinburgh, UK, 2016. (Eds.) J.-W. den Herder, T. Takahashi, M. Bautz. SPIE Conference Proceedings 9905E, SPIE - The International Society for Optical Engineering, Bellingham, WA USA, 99051Q (2016).

## Non-refereed Publications

- Arnaboldi, M., A. Longobardi and O. Gerhard: Planetary Nebulae and their parent stellar populations. Tracing the mass assembly of M87 and Intracluster light in the Virgo cluster core. In Proc. of "IAUS 317: The General Assembly of Galaxy Halos - Structure, Origin and Evolution", Honolulu, USA, 2015. (Eds.) A. Bragaglia, M. Arnaboldi, M. Rejkuba, D. Romano. Proc. IAU 317, Cambridge University Press, Cambridge, UK, 69-76 (2016).
- Boone, F., D. Schaerer, J. Richard, B. Clément, E. Egami, T. Rawle, D. Lutz, A. Weiss and J.G. Stagnuhn:  $z > 4$  low luminosity dusty galaxy candidates in the Frontier Fields A2744, AS1063 and A370. In P. Benvenuti (Ed.), *Astronomy in Focus XXIXB* as presented at the XXIX IAU General Assembly, 2015 (pp. 818-819) (2016).
- Brandl, B., S. Quanz, M. Feldt, A. Glasse, M. Guedel, M. Meyer, E. Pantin, C. Waelkens, K. Pontoppidan, E. van Dishoeck, O. Absil, R. van Boekel, T. Ratzka and T. Hennig: E-Elt. In Proc. of "Conditions and Impact of Star Formation", Zermatt, Switzerland, 2015. (Eds.) R. Simon, R. Schaaf, J. Stuzki. EAS Publ. Ser. 75, European Astronomical Society, 405-410 (2016).
- Caselli, P.: Chemistry in low-mass star forming regions. In Proc. of "Conditions and Impact of Star Formation", Zermatt, Switzerland, 2015. (Eds.) R. Simon, R. Schaaf, J. Stuzki. EAS Publ. Ser. 75, European Astronomical Society, 115-122 (2016).
- Charbonnel, C. and M. Krause: Did globular clusters contribute to the stellar population of the Galactic halo? In A. Bragaglia, M. Arnaboldi, M. Rejkuba, & D. Romano (Eds.), *The General Assembly of Galaxy Halos: Structure, Origin and Evolution (IAU Symposium 317)* (pp. 104-109). Cambridge, UK: Cambridge University Press (2016).
- Chon, G.: Characterising large-scale structure with the REFLEX II cluster survey. In Proc. of "IAUS 308: The Zeldovich Universe: Genesis and Growth of the Cosmic Web", Tallin, Estonia, 2014. (Eds.) R.. Proc. IAU 308, Cambridge University Press, Cambridge, UK, 200-204 (2016).
- Clerc, N., B. Sartoris, K. Dolag, R. Vijayaraghavan and V. Biffi: Galaxy cluster cosmology from X-ray surveys of the hot and energetic Universe. In P. Benvenuti (Ed.), *Astronomy in Focus XXIXB* as presented at the XXIX IAU General Assembly, 2015 (pp. 79-90) (2016).
- Collins, C.A., H. Böhringer, M. Bristow and G. Chon: Characterising the local void with the X-ray cluster survey REFLEX II. In Proc. of "IAUS 308: The Zeldovich Universe: Genesis and Growth of the Cosmic Web", Tallin, Estonia, 2014. (Eds.) R.. Proc. IAU 308, Cambridge University Press, Cambridge, UK, 585-588 (2016).
- Deshev, B., C. Park, H.S. Hwang, B. Ziegler, M. Verdugo, P. Kamphuis, A. Finoguenov, P. Tenjes and A. Tamm: Building Up a Cluster: The Case of A520. In Proc. of "Multi-Object Spectroscopy in the Next Decade: Big Questions, Large Surveys, and Wide Fields", Santa Cruz de la Palma, Spain, 2015. (Eds.) I. Skillen, M. Barcells, S. Trager. ASP Conf. Ser. 507, Astronomical Society of the Pacific, San Francisco, CA USA, 237 (2016).
- Diehl, R.: Gamma-Rays from Nucleosynthesis Ejecta. *Journal of Physics Conf. Ser.* 665, 012011 (2016).
- Dietrich, J.P., N. Werner, D. Clowe, A. Finoguenov, T. Kit-ching, L. Miller and A. Simionescu: The Dark Matter filament between Abell 222/223. In Proc. of "IAUS 308: The Zeldovich Universe: Genesis and Growth of the Cosmic Web", Tallin, Estonia, 2014. (Eds.) R.. Proc. IAU 308, Cambridge University Press, Cambridge, UK, 193-198 (2016).
- Drury, L. and A. Strong: Cosmic-ray diffusive reacceleration: a critical look. *Proceedings of Science, ICRC2015:* 483, 1-8 (2016).
- Elliott, J., R.S. de Souza, A. Krone-Martins, E. Cameron, E.E.O. Ishida and J. Hilbe: Using gamma regression for photometric redshifts of survey galaxies. In N.R. Napolitano, G. Longo, M. Marconi, M. Paolillo, & E. Iodice (Eds.), *The Universe of Digital Sky Surveys - a meeting to Honour the 70th Birthday of Massimo Capaccioli* (pp. 91-96) (2016).
- Furuya, K., M.N. Drozdovskaya, C. Walsh and E.F. van Dishoeck: Water transport from collapsing prestellar cores to forming disks: evolution of the HDO/H<sub>2</sub>O ratio. In Proc. of "Conditions and Impact of Star Formation", Zermatt, Switzerland, 2015. (Eds.) R. Simon, R. Schaaf, J. Stuzki. EAS Publ. Ser. 75, European Astronomical Society, 259-263 (2016).
- Gallagher, J.S., R.L. Davies, S. Courteau, A. Dekel, M. Franx, C.J. Jog, S. Jogee, N. Nakai, M. Rubio, L. Tacconi and E. Terlevich: Division J Commission 28: Galaxies. *Transactions of the International Astronomical Union* 29, 525-530 (2016).
- Gerhard, O.: The Milky Way, the Galactic Halo, and the Halos of Galaxies. In Proc. of "IAUS 317: The General Assembly of Galaxy Halos - Structure, Origin and Evolution", Honolulu, USA, 2015. (Eds.) A. Bragaglia, M. Arnaboldi, M. Rejkuba, D. Romano. Proc. IAU 317, Cambridge University Press, Cambridge, UK, 266-271 (2016).
- Greene, J.E., C.-P. Ma, A. Goulding, N.J. McConnell, J.P. Blakeslee, T. Davis and J. Thomas: Metallicity Gradients in the Halos of Elliptical Galaxies. In Proc. of "IAUS 317: The General Assembly of Galaxy Halos - Structure, Origin and Evolution", Honolulu, USA, 2015. (Eds.) A. Bragaglia, M. Arnaboldi, M. Rejkuba, D. Romano. Proc. IAU 317, Cambridge University Press, Cambridge, UK, 182-189 (2016).
- Govender, K., M.K. Hemenway, A. Wolter, N. Haghhighipour, Y. Yan, E.F. Van Dishoeck, D. Silva and E. Guinan: Divisions panel discussion: astronomy for development. In P. Benvenuti (Ed.), *Astronomy in Focus XXIXA* as presented at the XXIX IAU General Assembly, 2015 (pp. 424-426) (2016).
- Haerendel, G.: Fifty years of substorm research and its prospects, in *Space Research Institute in Times of Chan-*

- ge. Glimpses of the Past and Visions of the Future. Space Research Institute of the Russian Academy of Sciences (IKI RAN), pp.185-194 (2016).
- Hantke, M. F., D. Hasse, T. Ekeberg, ..., N. Kimmel, et al.: A data set from flash X-ray imaging of carboxysomes. *Scientific Data*, 3: 160061 (2016).
- Hocuk, S.: The role of ices in star-forming clouds. In Proc. of "Conditions and Impact of Star Formation", Zermatt, Switzerland, 2015. (Eds.) R. Simon, R. Schaaf, J. Stuzki. EAS Publ. Ser. 75, European Astronomical Society, 333-336 (2016).
- Houghton, R.C.W., R.L. Davies, R. Bender, A. Beifiori, J. Chan, M. Cappellari, A. Galametz, I. Lewis, J.T. Mendel, L. Prichard, R.P. Saglia, R. Sharples, R. Smith, J. Stott, D. Wilman and M. Wegner: The KMOS GTO Cluster Program: Absorption Line Spectroscopy of Cluster Galaxies at  $z \sim 1.5$ . In Proc. of "Multi-Object Spectroscopy in the Next Decade: Big Questions, Large Surveys, and Wide Fields", Santa Cruz de la Palma, Spain, 2015. (Eds.) I. Skillen, M. Barcells, S. Trager. ASP Conf. Ser. 507, Astronomical Society of the Pacific, San Francisco, CA USA, 281 (2016).
- Hughes, A., S. Meidt, D. Colombo, A. Schrubba, E. Schinnerer, A. Leroy and T. Wong: Giant molecular cloud populations in nearby galaxies. In P. Jablonka, P. André, & F. Van der Tak (Eds.), *From Interstellar Clouds to Star-Forming Galaxies: Universal Processes?* (IAU Symposium 315) (pp. 30-37). Cambridge, UK: Cambridge University Press (2016).
- Jameson, K. E., A.D. Bolatto, M. Wolfire, M. Rubio, R. Herrera Camus and HS Collaboration: Resolving the transition from molecular to atomic at 1/5 solar metallicity in the small magellanic cloud. In P. Jablonka, P. André, & F. VanderTak (Eds.), *From Interstellar Clouds to Star-Forming Galaxies: Universal Processes?* (IAU Symposium 315) (pp. 13-16). Cambridge, UK: Cambridge University Press (2016).
- Johannesson, G., I. Moskalenko, E. Orlando, T. Porter and A. Strong: The effects of three dimensional structures on cosmic-ray propagation and interstellar emissions. *Proceedings of Science, ICRC 2015*: 517, 1-7 (2016).
- Kato, K., M. Mori and G. Ogiya: Connection between cuspcore problem and too-big-to-fail problem in CDM model. In A. Bragaglia, M. Arnaboldi, M. Rejkuba, & D. Romano (Eds.), *The General Assembly of Galaxy Halos: Structure, Origin and Evolution* (IAU Symposium 317) (pp. 312-313). Cambridge, UK: Cambridge University Press (2016).
- Khrapak, A.G., V.I. Molotkov, A.M. Lipaev, D.I. Zhukhovitskii, V.N. Naumkin, V.E. Fortov, O.F. Petrov, H.M. Thomas, S.A. Khrapak, P. Huber, A. Ivlev and G. Morfill: Complex Plasma Research under Microgravity Conditions: PK-3 Plus Laboratory on the International Space Station. *Contributions to Plasma Physics* 56, 253-262 (2016).
- Kohno, K., Y. Yamaguchi, Y. Tamura, K. Tadaki, B. Hattakade, S. Ikarashi, K.I. Caputi, W. Rujopakarn, R.J. Ivison, J.S. Dunlop, K. Motohara, H. Umehata, K. Yabe, W.H. Wang, T. Kodama, Y. Koyama, M. Hayashi, Y. Matsuda, D. Hughes, I. Aretxaga, G.W. Wilson, M.S. Yun, K. Ohta, M. Akiyama, R. Kawabe, D. Iono, K. Nakanishi, M. Lee and R. Makiya: SXDF-UDS-CANDELS-ALMA 1.5 arcmin<sup>2</sup> deep survey. In Proc. of "IAUS 319: ", *Galaxies at High Redshift and Their Evolution Over Cosmic Time*. (Eds.) S. Kaviraj. Proc. IAU 319, Honolulu, USA, 2015, 92-95 (2016).
- Kong, S., J.C. Tan, P. Caselli and F. Fontani: The Deuteration Clock for Massive Starless Cores. In Proc. of "Conditions and Impact of Star Formation", Zermatt, Switzerland, 2015. (Eds.) R. Simon, R. Schaaf, J. Stuzki. EAS Publ. Ser. 75, European Astronomical Society, 337-341 (2016).
- Kwok, S., B.-C. Koo, Y.-H. Chu, D. Breitschwerdt, E. De Gouveia Dal Pino, J. Yang, M. Tsuboi, M. Rozyczka, M. Juvela, M. Burton, P. Caselli, S. Lizano, S. Cabrit and V. Toth: Report. *Transactions of the International Astronomical Union* 29, 500-501 (2016).
- Leurini, S., T. Pillai, P. Jones, T. Csengeri, C. König, T. Stanke, F. Wyrowski, K.M. Menten, P. Caselli, M. Cunningham and L. Testi: G351.77-0.51: ridge formation caught in the act. In Proc. of "Conditions and Impact of Star Formation", Zermatt, Switzerland, 2015. (Eds.) R. Simon, R. Schaaf, J. Stuzki. EAS Publ. Ser. 75, European Astronomical Society, 265-268 (2016).
- Loveday, J., D. Farrow and GAMA Team: Evolution in the Stellar Mass Function and Clustering of Galaxies. In Proc. of "Multi-Object Spectroscopy in the Next Decade: Big Questions, Large Surveys, and Wide Fields", Santa Cruz de la Palma, Spain, 2015. (Eds.) I. Skillen, M. Barcells, S. Trager. ASP Conf. Ser. 507, Astronomical Society of the Pacific, San Francisco, CA USA, 231 (2016).
- Michałowski, M. J., G. Gentile, J. Hjorth, ..., J. Greiner, ..., P. Schady, et al.: Inflow of atomic gas fuelling star formation. In P. Benvenuti (Ed.), *Astronomy in Focus XXIXB as presented at the XXIX IAU General Assembly, 2015* (pp. 229-230) (2016).
- Mottram, J.C., E.F. van Dishoeck, L.E. Kristensen and I. San José-García: Life in the fast lane: H<sub>2</sub>O reveals the universal nature of shocks in outflows. In Proc. of "Conditions and Impact of Star Formation", Zermatt, Switzerland, 2015. (Eds.) R. Simon, R. Schaaf, J. Stuzki. EAS Publ. Ser. 75, European Astronomical Society, 195-197 (2016).
- Murillo, N.M., C. Walsh, E.F. van Dishoeck, S. Bruderer, D. Harsono and S.-P. Lai: Tracing the disk, envelope and outflow cavity of VLA1623 with ALMA. In Proc. of "Conditions and Impact of Star Formation", Zermatt, Switzerland, 2015. (Eds.) R. Simon, R. Schaaf, J. Stuzki. EAS Publ. Ser. 75, European Astronomical Society, 287-288 (2016).
- Nevalainen, J., L.J. Liivamägi, E. Tempel, E. Branchini, M. Roncarelli, C. Giocoli, P. Heinämäki, E. Saar, M. Bonamente, M. Einasto, A. Finoguenov, J. Kastra, E. Lindfors, P. Nurmi and Y. Ueda: Finding and characterising WHIM structures using the luminosity density method. In Proc. of "IAUS 308: The Zeldovich Universe: Genesis and Growth of the Cosmic Web", Tallin, Estonia, 2014. (Eds.) R.. Proc. IAU 308, Cambridge University Press, Cambridge, UK, 368-371 (2016).
- Okada, T., T. Fukuhara, S. Tanaka, ..., T.G. Mueller, et al.: Thermal-Infrared Imager TIR on Hayabusa2 and Its



- In-Flight Performance and Calibration Using Earth and Moon Thermal Images. In Proc. of "47th Lunar and Planetary Science Conference", The Woodlands, Texas, USA, 2016. (Eds.) LPI Editorial Board. Proc. Lunar and Planetary Institute Science Conferences 47, Lunar and Planetary Institute, 1407 (2016).
- Olivares E., F. and J. Greiner: Magnetar-driven explosions as power source of Gamma-ray Bursts and Supernovae. In P. Benvenuti (Ed.), *Astronomy in Focus XXIXB* as presented at the XXIX IAU General Assembly, 2015 (pp. 241-242) (2016).
- Pustilnik, M.Y., A.V. Ivlev, N. Sadeghi, R. Heidemann, S. Mitich, H.M. Thomas and G.E. Morfill: Optogalvanic control of instabilities in dusty plasma. *Journal of Physics Conf. Ser.* 666, 012022 (2016).
- Schartmann, M., A. Ballone, A. Burkert, S. Gillessen, R. Genzel, O. Pfuhl, F. Eisenhauer, P.M. Plewa, T. Ott, E.M. George, M Habibi: 3D AMR simulations of the evolution of the diffuse gas cloud G2 in the Galactic Centre. In Proc. of "The Multi-Messenger Astrophysics of the Galactic Centre". (Eds.) S. Longmore et al., *Proceedings IAU Symposium*, Cambridge University Press, Vol. 322, 241-242 (2016).
- Sharon, K., M.D. Gladders, J.R. Rigby, M.B. Bayliss, E. Wuyts, H. Dahle, T.L. Johnson, M.K. Florian, S. Dunham, K. Murray, K. Whitaker and N. Li: Strong lensing mass reconstruction: from Frontier Fields to the typical lensing clusters of future surveys. In P. Benvenuti (Ed.), *Astronomy in Focus XXIXB* as presented at the XXIX IAU General Assembly, 2015 (pp. 793-794) (2016).
- Scharwaechter, J., M.A. Dopita, P. Shastri, R. Davies, L.J. Kewley, E. Hampton, R. Sutherland, P. Kharb, J. Jose, H. Bhatt, S. Ramya, C. Jin, J. Banfield, I. Zaw, S. Juneau, B. James and S. Srivastava: The WiFeS S7 AGN Survey: Current Status and Recent Results on NGC 6300. In Proc. of "The Universe of Digital Sky Surveys". (Eds.) N.R. Napolitano et al. *Astrophysics and Space Science Proceedings* Vol. 42, Springer, Switzerland, 263 (2016).
- Schweyer, T., P. Jarmatz and V. Burwitz: Astrobo: Towards a new observatory control system for the Garching Observatory 0.6m. In Proc. of "Fourth Workshop on Robotic Autonomous Observatories", Málaga, Spain, 2015. (Eds.) M.D. Caballero-García, S.B. Pandey, D. Hiriart, A.J. Castro-Tirado. *Revista Mexicana de Astronomía y Astrofísica (Serie de Conferencias)* Vol. 48, Instituto de Astronomía, UNAM, Mexico City, Mexico, 70-75 (2016).
- Shimakawa, R., T. Kodama, M. Hayashi, K.-I. Tadaki, T.L. Suzuki, Y. Koyama, I. Tanaka and M. Yamamoto: Toward unveiling internal properties of Hii regions and their connections at the cosmic noon era. In Proc. of "IAUS 319: Galaxies at High Redshift and Their Evolution Over Cosmic Time". (Eds.) S. Kaviraj. Proc. IAU 319, Honolulu, USA, 2015, 53-53 (2016).
- Stenzel, O.J., M. Hilchenbach, J. Kissel, ..., G. Haerendel, et al.: Refractory Elements from High Resolution Mass Spectra of 67P Particles as Found by Rosetta/COSIMA. In Proc. of "47th Lunar and Planetary Science Conference", The Woodlands, Texas, USA, 2016. (Eds.) LPI Editorial Board. Proc. Lunar and Planetary Institute Science Conferences 47, Lunar and Planetary Institute, 1934 (2016).
- Szűcs, L., S. Glover and P. Caselli: Losing track of the time: the chemical clock of prestellar core evolution in hydrodynamic simulation. In Proc. of "Conditions and Impact of Star Formation", Zermatt, Switzerland, 2015. (Eds.) R. Simon, R. Schaaf, J. Stuzki. *EAS Publ. Ser.* 75, European Astronomical Society, 391-392 (2016).
- van Dishoeck, E. F.: The molecular universe: from observations to laboratory and back. In P. Benvenuti (Ed.), *Astronomy in Focus XXIXA* as presented at the XXIX IAU General Assembly, 2015 (pp. 299-304) (2016).
- van der Marel, N., E.F. van Dishoeck, S. Bruderer, P. Pinnilla, T. van Kempen, L. Perez and A. Isella: Gas Cavities inside Dust Cavities in Disks Inferred from ALMA Observations. In Proc. of "IAUS 314: Young Stars & Planets Near the Sun", Atlanta, USA, 2015. (Eds.) J.H. Kastner, B. Stelzer and S.A. Metchev. Proc. IAU 314, Cambridge University Press, Cambridge, UK, 139-142 (2016).
- Yu, H.-F., H.J. van Eerten, J. Greiner, R. Sari, P.N. Bhat, A. von Kienlin, W.S. Paciesas and R.D. Preece: The Spectral Sharpness Angle of Gamma-ray Bursts. In: *Proceedings of The Sixth Fermi Asian Network Workshop*. (Eds.) H.-F. Yu et al. *Journal of Astronomy and Space Science* Vol. 33(2), The Korean Space Science Society, Korea, 109-117 (2016).
- Yu, H.-F., H.J. van Eerten, J. Greiner, R. Sari, P.N. Bhat, A.v. Kienlin, W.S. Paciesas and R.D. Preece: The Spectral Sharpness Angle of Gamma-ray Bursts. *Journal of Astronomy and Space Sciences* 33, 109-117 (2016).

## Books / Articles in Books

Kormendy, J.: Elliptical Galaxies and Bulges of Disc Galaxies: Summary of Progress and Outstanding Issues. Galactic Bulges, Astrophysics and Space Science Library 418, 431-477 (2016).

Merloni, A.: Observing Supermassive Black Holes Across Cosmic Time: From Phenomenology to Physics. In Book: "Astrophysical Black Holes" (Eds.) F. Haardt, V. Gorini, U. Moschella, A. Treves, M. Colpi. Springer, Lecture notes in Physics 905, 101-143 (2016).

Müller, T. G.: Der fränkische Kleinplanet "(7984) Marius", Simon Marius und seine Forschung. (Eds.) H. Gaab, P. Leich. W. Dick und J. Hamel, Leipzig, 441-453 (2016).

## Popular Scientific Publications

Brammer, G.B., D. Marchesini, I. Labbé, L. Spitler, D. Lange-Vagle, E.A. Barker, M. Tanaka, A. Fontana, A. Galametz, A. Ferré-Mateu, T. Kodama, B. Lundgren, N. Martis, A. Muzzin, M. Stefanon, S. Toft, A. van der Wel, B. Vulcani and K.E. Whitaker: Ultra-deep K-band Imaging of the Hubble Frontier Fields. The Messenger 165, 34-37 (2016).

## Telegrams / Circulars / Data Catalogues

- Acerro, F., M. Ackermann, M. Ajello, ..., A.W. Strong, et al.: VizieR Online Data Catalog: The first Fermi LAT SNR catalog (1SC) (Acerro+, 2016). VODC 222 (2016).
- Alberts, S., A. Pope, M. Brodwin, S.M. Chung, R. Cybulski, A. Dey, P.R.M. Eisenhardt, A. Galametz, A.H. Gonzalez, B.T. Jannuzi, S.A. Stanford, G.F. Snyder, D. Stern and G.R. Zeimann: VizieR Online Data Catalog: Follow-up study of gal. & AGNs in  $z>1$  clusters (Alberts+, 2016). VODC 182 (2016).
- Baczko, A.-K., R. Schulz, M. Kadler, E. Ros, M. Perucho, T.P. Krichbaum, M. Bock, M. Bremer, C. Grossberger, M. Lindqvist, A.P. Lobanov, K. Mannheim, I. Marti-Vidal, C. Mueller, J. Wilms and J.A. Zensus: VizieR Online Data Catalog: Pinpointing the SMBH in NGC1052 (Baczko+, 2016). VODC 359 (2016).
- Baganoff, F.K., L.R. Corrales, J. Neilsen, M.A. Nowak, N. Rea, F.C. Zelati, D. Haggard, S. Markoff, G. Ponti, G.C. Bower and G.P. Garmire: Chandra Position of Galactic Center X-ray Transient Swift J174540.7-290015. The Astronomer's Telegram 8746 (2016).
- Balestra, I., A. Mercurio, B. Sartoris, M. Girardi, C. Grillo, M. Nonino, P. Rosati, A. Biviano, S. Etori, W. Forman, C. Jones, A. Koekemoer, E. Medezinski, J. Merten, G.A. Ogrean, P. Tozzi, K. Umetsu, E. Vanzella, R.J. van Weeren, A. Zitrin, M. Annunziatella, G.B. Caminha, T. Broadhurst, D. Coe, M. Donahue, A. Fritz, B. Frye, D. Kelson, M. Lombardi, C. Maier, M. Meneghetti, A. Monna, M. Postman, M. Scodeggio, S. Seitz and B. Ziegler: VizieR Online Data Catalog: CLASH-VLT: the FF cluster MACS J0416.1-2403 (Balestra+, 2016). VODC 222 (2016).
- Baronchelli, I., C. Scarlata, G. Rodighiero, A. Franceschini, P.L. Capak, S. Mei, M. Vaccari, L. Marchetti, P. Hibon, C. Sedgwick, C. Pearson, S. Serjeant, K. Menendez-Delmestre, M. Salvato, M. Malkan, H.I. Teplitz, M. Hayes, J. Colbert, C. Papovich, M. Devlin, A. Kovacs, K.S. Scott, J. Surace, J.D. Kirkpatrick, H. Atek, T. Urrutia, N.Z. Scoville and T.T. Takeuchi: VizieR Online Data Catalog: Multi-wavelength catalog in the SEP field (Baronchelli+, 2016). VODC 222 (2016).
- Berta, S., D. Lutz, P. Santini, S. Wuyts, D. Rosario, D. Brisbin, A. Cooray, A. Franceschini, C. Gruppioni, E. Hatziminaoglou, H.S. Hwang, E. Le Floch, B. Magnelli, R. Nordon, S. Oliver, M.J. Page, P. Popesso, L. Pozzetti, F. Pozzi, L. Riguccini, G. Rodighiero, I. Roseboom, D. Scott, M. Symeonidis, I. Valtchanov, M. Viero and L. Wang: VizieR Online Data Catalog: Panchromatic SED of Herschel sources (Berta+, 2013). VODC 355 (2016).
- Bhat, P.N., C.A. Meegan, A. von Kienlin, W.S. Paciesas, M.S. Briggs, J.M. Burgess, E. Burns, V. Chaplin, W.H. Cleveland, A.C. Collazzi, V. Connaughton, A.M. Diekmann, G. Fitzpatrick, M.H. Gibby, M.M. Giles, A.M. Goldstein, J. Greiner, P.A. Jenke, R.M. Kippen, C. Kouveliotou, B. Mailyan, S. McBreen, V. Pelassa, R.D. Preece, O.J. Roberts, L.S. Sparke, M. Stanbro, P. Veres, C.A. Wilson-Hodge, S. Xiong, G. Younes, H.-F. Yu and B. Zhang: VizieR Online Data Catalog: The third Fermi/GBM GRB catalog (6yr) (Bhat+, 2016). VODC 222 (2016).
- Bodensteiner, J., F. Knust, T. Schweyer and J. Greiner: GRB 160501A: GROND Upper limits. GCN Circ. 19375 (2016).
- Bodensteiner, J., S. Schmidl and J. Greiner: GRB 160425A: GROND observation. GCN Circ. 19349 (2016).
- Boller, T., M.J. Freyberg, J. Trümper, F. Haberl, W. Voges and K. Nandra: VizieR Online Data Catalog: Second ROSAT all-sky survey (2RXS) source catalog (Boller+, 2016). VODC 358 (2016).
- Bolmer, J. and J. Greiner: GRB 160804A: GROND observations. GCN Circ. 19774 (2016).
- Bolmer, J., J. Greiner and D.A. Kann: GRB160303A: further GROND observations. GCN Circ. 19150 (2016).
- Bolmer, J., T. Kruehler and J. Greiner: GRB 160221A: GROND upper limits. GCN Circ. 19054 (2016).
- Bolmer, J., T. Kruehler and J. Greiner: GRB 160223A: GROND optical/NIR afterglow. GCN Circ. 19058 (2016).
- Bolmer, J., T. Schweyer and J. Greiner: GRB 160412A: GROND upper limits. GCN Circ. 19314 (2016).
- Bonzini, M., V. Mainieri, P. Padovani, P. Andreani, S. Berta, M. Bethermin, D. Lutz, G. Rodighiero, D. Rosario, P. Tozzi and S. Vattakunnel: VizieR Online Data Catalog: Sub-mJy radio sources SF properties (Bonzini+, 2015). VODC 745 (2016).
- Boone, K., G. Aldering, R. Amanullah, K. Barbary, H. Boehringer, M. Brodwin, C. Cunha, S.E. Deustua, S. Dixon, P. Eisenhardt, R. Fassbender, A.S. Fruchter, M. Gladders, A.H. Gonzalez, A. Goobar, B. Hayden, H. Hildebrandt, M. Hilton, H. Hoekstra, I. Hook, X. Huang, D. Huterer, M.J. Jee, A.G. Kim, M. Kowalski, C. Lidman, E. Linder, K. Luther, J. Meyers, A. Muzzin, J. Nordin, R. Pain, S. Perlmutter, J. Richard, P. Rosati, E. Rozo, D. Rubin, E.S. Rykoff, J.S. Santos, C.M. Saunders, C. Sofiatti, A.L. Spadafora, S.A. Stanford, D. Stern, N. Suzuki, T. Webb, R.H. Wechsler, S.C. Williams, J. Willis, G. Wilson and M. Yen: SCP16L01: discovery of an unusual transient in MOO-J1142. The Astronomer's Telegram 9125 (2016).
- Boselli, A., J.C. Cuillandre, M. Fossati, S. Boissier, D. Bomans, G. Consolandi, G. Anselmi, L. Cortese, P. Cote, P. Durrell, L. Ferrarese, M. Fumagalli, G. Gavazzi, S. Gwyn, G. Hensler, M. Sun and E. Toloba: VizieR Online Data Catalog: Ionised gas images of NGC 4569 (Boselli+, 2016). VODC 358 (2016).
- Bower, G.C., P. Demorest, F. Baganoff, L. Corrales, A. Deller, J. Dexter, D. Haggard, S. Markoff, N. Rea and F.C. Zelati: A Search for a Radio Counterpart to Swift J174540.7-290015. The Astronomer's Telegram 8793 (2016).
- Campbell, J.L., R.K. Friesen, P.G. Martin, P. Caselli, J. Kauffmann and J.E. Pineda: VizieR Online Data Catalog: HCO+ and N2D+ dense cores in Perseus (Campbell+, 2016). VODC 181 (2016).

- Cazzoli, G., V. Lattanzi, T. Kirsch, J. Gauss, B. Tercero, J. Cernicharo and C. Puzzarini: VizieR Online Data Catalog: HSO line list (Cazzoli+, 2016). VODC 359 (2016).
- Chen, T.-W., F. Knust, J. Greiner and D.A. Kann: GRB 160607A: GROND confirmation of the afterglow. GCN Circ. 19512 (2016).
- Chen, T.-W., P. Schady and T. Kruehler: GROND followup of DLT16am/AT2016ija. The Astronomer's Telegram 9789 (2016).
- Chen, T.-W., S. Klose, A.N. Guelbenzu, J. Bolmer, T. Kruehler and J. Greiner: GRB 161001A: GROND afterglow candidate. GCN Circ. 19975 (2016).
- Chen, T.-W., T. Kruehler and J. Greiner: GRB 160117B: GROND optical/NIR afterglow observations. GCN Circ. 18887 (2016).
- Chen, T.-W., T. Kruehler, F. Knust, J. Greiner and D.A. Kann: GRB 160119A: GROND optical/NIR afterglow observations. GCN Circ. 18902 (2016).
- Civano, F., S. Marchesi, A. Comastri, M.C. Urry, M. Elvis, N. Cappelluti, S. Puccetti, M. Brusa, G. Zamorani, G. Hasinger, T. Aldcroft, D.M. Alexander, V. Allevato, H. Brunner, P. Capak, A. Finoguenov, F. Fiore, A. Fruscione, R. Gilli, K. Glotfelty, R.E. Griffiths, H. Hao, F.A. Harrison, K. Jahnke, J. Kartaltepe, A. Karim, S.M. Lamassa, G. Lanzuisi, T. Miyaji, P. Ranalli, M. Salvato, M. Sargent, N.J. Scoville, K. Schawinski, E. Schinnerer, J. Silverman, V. Smolcic, D. Stern, S. Toft, B. Trakhenbrot, E. Treister and C. Vignali: VizieR Online Data Catalog: The COSMOS-Legacy Survey (CLS) catalog (Civano+, 2016). VODC 181 (2016).
- Coe, M.J., V. McBride, F. Haberl, A. Bird and A. Udalski: The optical counterpart to XMMU J004855.5-734946. The Astronomer's Telegram 9198 (2016).
- Degenaar, N., M.T. Reynolds, R. Wijnands, J.M. Miller, J.A. Kennea, G. Ponti, D. Haggard and N. Gehrels: Continued Swift/XRT observations of the new Galactic center transients SWIFT J174540.2-290037 and SWIFT J174540.7-290015. The Astronomer's Telegram 9196 (2016).
- Degenaar, N., M.T. Reynolds, R. Wijnands, J.M. Miller, J.A. Kennea, G. Ponti, D. Haggard and N. Gehrels: Swift/XRT detection of another active X-ray transient close to Sgr A\*. The Astronomer's Telegram 9109 (2016).
- Degenaar, N., R. Wijnands, M.T. Reynolds, J.M. Miller, J.A. Kennea, N. Gehrels, G. Ponti and D. Haggard: Swift/XRT detects renewed activity of the Galactic center transient GRS 1741-2853. The Astronomer's Telegram 8881 (2016).
- Delvaux, C., D.A. Kann, F. Knust and J. Greiner: GRB 160325A: GROND Upper Limits. GCN Circ. 19233 (2016).
- Delvaux, C., S. Schmidl and J. Greiner: GRB 160121A: GROND Afterglow observations. GCN Circ. 18921 (2016).
- Delvaux, C., T. Schweyer, D.A. Kann and J. Greiner: GRB 160228A: GROND Afterglow Candidate. GCN Circ. 19114 (2016).
- de Ugarte Postigo, A., D. Malesani, D.A. Perley, J.P.U. Fynbo, K.E. Heintz, A. Somero, E. Gafton, S. Damsted, G. Erfanianfar, A. Finoguenov, C. Gibson, F. Kiefer, C. Kirkpatrick, M. Lumme, V. Oja, J. Rantakyla, I. Salmenpera and M. Seppala: GRB 161108A: NOT redshift. GCN Circ. 20150 (2016).
- de Ugarte Postigo, A., D. Malesani, T. Kruehler, D. Xu, S. Schulze, J. Hjorth and N.R. Tanvir: GRB 160303A: X-shooter spectroscopy. GCN Circ. 19154 (2016).
- de Ugarte Postigo, A., T. Kruehler, D. Xu, D. Malesani, Z. Cano, N.R. Tanvir, M. Messa, E. Gafton and I.R. Losada: GRB 160303A: Continued optical monitoring from NOT. GCN Circ. 19152 (2016).
- Ducci, L., K. Watanabe, C. Sanchez, R. Diehl, E. Bozzo and C. Ferrigno: INTEGRAL detection of MAXI J0911-655: still active. The Astronomer's Telegram 9738 (2016).
- Fish, V.L., M.D. Johnson, S.S. Doeleman, ..., J. Dexter, et al.: VizieR Online Data Catalog: 4yr 1.3mm VLBI observations of SgrA\* with EHT (Fish+, 2016). VODC 182 (2016).
- Fritz, T.K., S. Chatzopoulos, O. Gerhard, S. Gillessen, R. Genzel, O. Pfuhl, S. Tacchella, F. Eisenhauer and T. Ott: VizieR Online Data Catalog: Star motions in the nuclear cluster of the MW (Fritz+, 2016). VODC 182 (2016).
- Golenetskii, S., R. Aptekar, D. Frederiks, D. Svinkin, T. Cline, K. Hurley, I.G. Mitrofanov, D. Golovin, M.L. Litvak, A.B. Sanin, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm, D. Palmer, W. Boynton, C. Fellows, K. Harshman, H. Enos and R. Starr: IPN Triangulation of GRB 151225A (short/hard). GCN Circ. 18836 (2016).
- Golenetskii, S., R. Aptekar, D. Frederiks, D. Svinkin, T. Cline, K. Hurley, I.G. Mitrofanov, D. Golovin, M.L. Litvak, A.B. Sanin, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm, D. Palmer, W. Boynton, C. Fellows, K. Harshman, H. Enos and R. Starr: IPN Triangulation of GRB 151229B (extremely intense/long). GCN Circ. 18852 (2016).
- Golenetskii, S., R. Aptekar, D. Frederiks, D. Svinkin, T. Cline, K. Hurley, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm, D. Palmer, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo and C. Ferrigno: IPN Triangulation of GRB 160111A (short/hard). GCN Circ. 18864 (2016).
- Graham, J., J. Bolmer, P. Wiseman and J. Greiner: GRB 160303A: GROND Optical Detection. GCN Circ. 19144 (2016).
- Graham, J.F., T. Schweyer and J. Greiner: GRB 160123A: GROND Upper limits. GCN Circ. 18936 (2016).
- Green, J.D., Y.-L. Yang, N.J. Evans II, A. Karska, G. Herczeg, E.F. van Dishoeck, J.-E. Lee, R.L. Larson and J. Bouwman: VizieR Online Data Catalog: Herschel-PACS and -SPIRE spectroscopy of 70 objects (Green+, 2016). VODC 515 (2016).
- Greiner, J., C. Delvaux, L. Wyrzykowski, Z. Kostrzewa-Rutkowska, T.-W. Chen and P. Schady: Swift and GROND observation of OGLE16aaa. The Astronomer's Telegram 8579 (2016).
- Greiner, J., J. Bolmer, P. Gandhi, D. Altamirano, P.A. Charles, J.M. Court, D.A. Kann and D.J. Walton: GROND optical/NIR and Swift/XRT observation of IGR J17091-3624. The Astronomer's Telegram 8795 (2016).

- Greiner, J., T. Kruehler and C. Delvaux: XMMSL1 J152535.1+174859 in active state. *The Astronomer's Telegram* 8630 (2016).
- Grossi, M., E. Corbelli, L. Bizzocchi, C. Giovanardi, D. Bomans, B. Coelho, I. de Looze, T.S. Gonçalves, L.K. Hunt, E. Leonardo, S. Madden, K. Menendez-Delmestre, C. Pappalardo and L. Riguccini: *VizieR Online Data Catalog: CO spectra of Virgo cluster galaxies* (Grossi+, 2016). VODC 359 (2016).
- Guelbenzu, A.N., S. Schmidl and J. Greiner: GRB 161104A: GROND observations. *GCN Circ.* 20132 (2016).
- Hamburg, R. and A. von Kienlin: GRB 160624A: Fermi GBM observation. *GCN Circ.* 19570 (2016).
- Hamburg, R., C. Meegan and A. von Kienlin: GRB 161106A: Fermi GBM detection. *GCN Circ.* 20140 (2016).
- Heintz, K.E., D. Malesani, A. de Ugarte Postigo, T. Pursimo, T. Kruehler, J. Telting and J.P.U. Fynbo: GRB 161007A: NOT optical observations. *GCN Circ.* 20020 (2016).
- Henze, M., M. Sasaki, F. Haberl, B.F. Williams and D. Hatzidimitriou: New and recurrent X-ray transients in M31 observed with XMM-Newton in January 2016 - part 2. *The Astronomer's Telegram* 8827 (2016).
- Henze, M., M. Sasaki, F. Haberl, B.F. Williams and D. Hatzidimitriou: XMM-Newton X-ray detections of M31 novae in January 2016. *The Astronomer's Telegram* 8825 (2016).
- Henze, M., M. Sasaki, F. Haberl, B.F. Williams, D. Hatzidimitriou, et al.: New and recurrent X-ray transients in M31 observed with XMM-Newton in January 2016 - part 1. *The Astronomer's Telegram* 8826 (2016).
- Herpin, F., L. Chavarría, T. Jacq, J. Braine, F. van der Tak, E.F. van Dishoeck, A. Baudry, S. Bontemps, L. Kristensen, M. Schmalzl and J. Mata: *VizieR Online Data Catalog: Water lines spectra of 4 protostellar objects* (Herpin+, 2016). VODC 358 (2016).
- Hurley, K., I.G. Mitrofanov, D. Golovin, M.L. Litvak, A.B. Sanin, A. Kozlova, S. Golenetskii, R. Aptekar, D. Frederiks, D. Svinkin, T. Cline, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm, D. Palmer, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, W. Boynton, C. Fellows, K. Harshman, H. Enos and R. Starr: IPN Triangulation of GRB 160702A (short/hard). *GCN Circ.* 19666 (2016).
- Hurley, K., I.G. Mitrofanov, D. Golovin, M.L. Litvak, A.B. Sanin, A. Kozlova, S. Golenetskii, R. Aptekar, D. Frederiks, D. Svinkin, T. Cline, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, W. Boynton, C. Fellows, K. Harshman, H. Enos and R. Starr: IPN Triangulation of GRB 160802A. *GCN Circ.* 19766 (2016).
- Hurley, K., I.G. Mitrofanov, D. Golovin, M.L. Litvak, A.B. Sanin, A. Kozlova, S. Golenetskii, R. Aptekar, D. Frederiks, D. Svinkin, T. Cline, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm, D. Palmer, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, W. Boynton, C. Fellows, K. Harshman, H. Enos and R. Starr: IPN Triangulation of GRB 160806A. *GCN Circ.* 19784 (2016).
- Hurley, K., I.G. Mitrofanov, D. Golovin, M.L. Litvak, A.B. Sanin, A. Kozlova, S. Golenetskii, R. Aptekar, D. Frederiks, D. Svinkin, T. Cline, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm, D. Palmer, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, W. Boynton, C. Fellows, K. Harshman, H. Enos and R. Starr: IPN Triangulation of GRB 161020B. *GCN Circ.* 20091 (2016).
- Hurley, K., I.G. Mitrofanov, D. Golovin, M.L. Litvak, A.B. Sanin, D. Svinkin, S. Golenetskii, R. Aptekar, D. Frederiks, A. Kozlova, T. Cline, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, W. Boynton, C. Fellows, K. Harshman, H. Enos and R. Starr: IPN Triangulation of GRB 160720A. *GCN Circ.* 19726 (2016).
- Hurley, K., I.G. Mitrofanov, D. Golovin, M.L. Litvak, A.B. Sanin, S. Golenetskii, R. Aptekar, D. Frederiks, D. Svinkin, A. Kozlova, T. Cline, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm, D. Palmer, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, W. Boynton, C. Fellows, K. Harshman, H. Enos and R. Starr: IPN Triangulation of GRB 160620A (short/hard). *GCN Circ.* 19594 (2016).
- Hurley, K., I.G. Mitrofanov, D. Golovin, M.L. Litvak, A.B. Sanin, S. Golenetskii, R. Aptekar, D. Frederiks, D. Svinkin, A. Kozlova, T. Cline, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm, D. Palmer, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, W. Boynton, C. Fellows, K. Harshman, H. Enos and R. Starr: IPN Triangulation of GRB 160113A. *GCN Circ.* 18871 (2016).
- Kama, M., S. Bruderer, M. Carney, M. Hogerheijde, E.F. van Dishoeck, D. Fedele, A. Baryshev, W. Boland, R. Gusten, A. Aikutalp, Y. Choi, A. Endo, W. Frieswijk, A. Karska, P. Klaassen, E. Koumpia, L. Kristensen, S. Leurini, Z. Nagy, J.-P. Perez Beaufuits, C. Risacher, N. van der Marel, T.A. van Kempen, R.J. van Weeren, F. Wyrowski and U.A. Yildiz: *VizieR Online Data Catalog: Spectra of CO and [CI] in protoplanetary disks* (Kama+, 2016). VODC 358 (2016).
- Kann, D.A., P. Schady and J. Greiner: GROND observations of GRB 160622A/SNR RCW 103/SGR 1617-5103. *GCN Circ.* 19557 (2016).
- Kann, D.A., T. Kruehler, S. Schmidl, J. Bolmer and J. Greiner: GRB 160630A: GROND Afterglow Detection. *GCN Circ.* 19625 (2016).
- Kartaltepe, J.S., M. Mozena, D. Kocevski, ..., D. Rosario, ..., S. Wuyts: *VizieR Online Data Catalog: CANDELS visual classifications for GOODS-S* (Kartaltepe+, 2015). VODC 222 (2016).
- Kaur, A., J. Bolmer, J. Greiner, A. Rau, P. Schady, M. Ajello and D.H. Hartmann: Ultraviolet, Optical and near-infrared

- photometric follow up of the transient source Fermi J1654-1055 with GROND and Swift-UVOT. The Astronomer's Telegram 8743 (2016).
- Klose, S., A. Nicuesa Guelbenzu, T. Kruehler, D. Malesani and J. Greiner: GRB 160303A: VLT/FORS2 afterglow observations. GCN Circ. 19142 (2016).
- Knust, F., C. Delvaux and J. Greiner: GRB 160506A: GROND upper limits. GCN Circ. 19396 (2016).
- Knust, F., J. Bolmer, J. Greiner and D.A. Kann: GRB 160131A: GROND Detection of the Optical/NIR Afterglow. GCN Circ. 18967 (2016).
- Kozlova, A., S. Golenetskii, R. Aptekar, D. Frederiks, D. Svinkin, T. Cline, K. Hurley, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm and D. Palmer: IPN Triangulation of GRB 160406A (short/hard). GCN Circ. 19259 (2016).
- Kozlova, A., S. Golenetskii, R. Aptekar, D. Frederiks, D. Svinkin, T. Cline, K. Hurley, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm and D. Palmer: IPN Triangulation of GRB 160612A (short/hard). GCN Circ. 19535 (2016).
- Kruehler, T. and J. Greiner: GRB 160712A: Further GROND observations. GCN Circ. 19702 (2016).
- Kruehler, T. and J. Greiner: GRB 160712A: GROND observations. GCN Circ. 19693 (2016).
- Kruehler, T. and J. Greiner: GRB 161023A: GROND Observations. GCN Circ. 20113 (2016).
- Kruehler, T. and J. Greiner: Optical and near-infrared photometry of SN 2016adj (Cen A) with GROND. The Astronomer's Telegram 8665 (2016).
- Kruehler, T., A. de Ugarte Postigo and T. Kuutma: GRB 160504A: NOT upper limits. GCN Circ. 19385 (2016).
- Kruehler, T., A. de Ugarte Postigo, D. Malesani and T. Kuutma: GRB 160310A: NOT optical observations. GCN Circ. 19164 (2016).
- Kruehler, T., C. Delvaux and J. Greiner: GRB 160206A: GROND Observations. GCN Circ. 18997 (2016).
- Kruehler, T., D. Malesani, D. Xu, J. Bolmer, J.P.U. Fynbo, D. Perley, D.A. Kann, J. Greiner and J.F. Graham: GRB 160228A: GROND afterglow confirmation and X-shooter host candidate redshift. GCN Circ. 19186 (2016).
- Kruehler, T., D. Xu, J. Bolmer, K. Wiersema, D. Malesani, R. Sanchez-Ramirez and J.P.U. Fynbo: GRB 161001A: X-shooter spectroscopy, candidate host galaxy and redshift. GCN Circ. 19971 (2016).
- Kruehler, T., D. Xu, Y.-D. Hu, Y. Qing and Y.-H. Han: GRB 160117B: LCOGT-SSO optical observations. GCN Circ. 18878 (2016).
- Kruehler, T., D.A. Kann, J. Greiner and J. Bolmer: GRB 160203A: GROND Afterglow Candidate. GCN Circ. 18980 (2016).
- Kruehler, T., G. Leloudas, D. Malesani and T. Kuutma: GRB 160310A: Further NOT observations. GCN Circ. 19169 (2016).
- Lamassa, S.M., C.M. Urry, N. Cappelluti, H. Bohringer, A. Comastri, E. Glikman, G. Richards, T. Ananna, M. Brusa, C. Cardamone, G. Chon, F. Civano, D. Farrah, M. Gilfanov, P. Green, S. Komossa, P. Lira, M. Makler, S. Marchesi, R. Pecoraro, P. Ranalli, M. Salvato, K. Schawinski, D. Stern, E. Treister and M. Viero: VizieR Online Data Catalog: X-ray Observations of Stripe 82 (La Massa+, 2016). VODC 181 (2016).
- Liu, Z., A. Merloni, A. Georgakakis, M.-L. Menzel, J. Buchner, K. Nandra, M. Salvato, Y. Shen, M. Brusa and A. Streblyanska: VizieR Online Data Catalog: AGN sample in the northern XMM-XXL field (Liu+, 2016). VODC 745 (2016).
- Lutz, D., S. Berta, A. Contursi, N.M. Forster Schreiber, R. Genzel, J. Gracia-Carpio, R. Herrera-Camus, H. Netzer, E. Sturm, L.J. Tacconi, K. Takaki and S. Veilleux: VizieR Online Data Catalog: Galaxies and QSOs FIR size and surface brightness (Lutz+, 2016). VODC 359 (2016).
- Ma, B., J. Ge, A. Wolszczan, M.W. Muterspaugh, B. Lee, G.W. Henry, D.P. Schneider, E.L. Martin, A. Niedzielski, J. Xie, S.W. Fleming, N. Thomas, M. Williamson, Z. Zhu, E. Agol, D. Bizyaev, L.N. da Costa, P. Jiang, A.F.M. Fiorenzano, J.I.G. Hernandez, P. Guo, N. Grieves, R. Li, J. Liu, S. Mahadevan, T. Mazeh, D.C. Nguyen, M. Paegert, S. Sithajan, K. Stassun, S. Thirupathi, J.C. van Eyken, X. Wan, J. Wang, J.P. Wisniewski, B. Zhao and S. Zucker: VizieR Online Data Catalog: Solar-type stars from SDSS-III MARVELS. VI. HD 87646 (Ma+, 2016). VODC 515 (2016).
- Maggi, P., F. Haberl, P.J. Kavanagh, M. Sasaki, L.M. Bozzetto, M.D. Filipovic, G. Vasilopoulos, W. Pietsch, S.D. Points, Y.-H. Chu, J. Dickel, M. Ehle, R. Williams and J. Greiner: VizieR Online Data Catalog: X-ray supernova remnants in LMC (Maggi+, 2016). VODC 358 (2016).
- Malesani, D., A. de Ugarte Postigo, A. Somero, E. Gaffon, S. Damsted, G. Erfanianfar, A. Finoguenov, C. Gibson, F. Kiefer, C. Kirkpatrick, M. Lumme, V. Oja, J. Rantakyla, I. Salmenpera and M. Seppala: GRB 161108A: NOT candidate afterglow. GCN Circ. 20146 (2016).
- Malesani, D., A. de Ugarte Postigo, T. Kruehler and A. Kvammen: GRB 160314A: NOT afterglow observations. GCN Circ. 19191 (2016).
- Malesani, D., J.P.U. Fynbo and T. Kruehler: GRB 150302A: late-time imaging and optical afterglow confirmation. GCN Circ. 20000 (2016).
- Malesani, D., T. Kruehler, K.E. Heintz and J.P.U. Fynbo: GRB 161117A: VLT/X-shooter spectroscopy and redshift. GCN Circ. 20180 (2016).
- Melendez, M., R.F. Mushotzky, T.T. Shimizu, A.J. Barger and L.L. Cowie: VizieR Online Data Catalog: PACS observations of Herschel-BAT sample (Melendez+, 2014). VODC 179 (2016).
- Menzel, M.-L., A. Merloni, A. Georgakakis, M. Salvato, E. Aubourg, W.N. Brandt, M. Brusa, J. Buchner, T. Dwelly, K. Nandra, I. Paris, P. Petitjean and A. Schwobe: VizieR Online Data Catalog: Northern XMM-XXL field AGN catalog (Menzel+, 2016). VODC 745 (2016).

- Miotello, A., E.F. van Dishoeck, M. Kama and S. Bruderer: *VizieR Online Data Catalog: 2D disk models from CO isotopologues line (Miotello+, 2016)*. VODC 359 (2016).
- Neilsen, J., S. Motta, G. Ponti, M. Coriat, R. Fender and S. Corbel: *Swift Observations of GRS 1739-278 in Outburst. The Astronomer's Telegram 9541 (2016)*.
- Pál, A., C. Kiss, T.G. Muller, L. Molnar, R. Szabo, G.M. Szabo, K. Sarneczky and L.L. Kiss: *VizieR Online Data Catalog: R photometry of (225088) 2007 OR<sub>10</sub> (Pal+,2016)*. VODC 515 (2016).
- Persson, M.V., D. Harsono, J.J. Tobin, E.F. van Dishoeck, J.K. Joergensen, N. Murillo and S.-P. Lai: *VizieR Online Data Catalog: Class 0 sources continuum subtracted UV-tables (Persson+, 2016)*. VODC 359 (2016).
- Pierre, M., F. Pacaud, C. Adami, ..., N. Clerc, et al.: *VizieR Online Data Catalog: XXL Survey: First results (Pierre+, 2016)*. VODC 9049 (2016).
- Planck Collaboration, P.A.R. Ade, N. Aghanim, ..., H. Boehringer, ..., G. Chon, et al.: *VizieR Online Data Catalog: Optical ident. and redshifts of Planck SZ sources (Planck+, 2016)*. VODC 358 (2016).
- Postel, A., L. Ducci, C. Sanchez, J. Keajava, E. Kuulkers, R. Diehl, K. Watanabe and C. Ferrigno: *INTEGRAL observations of the Be/X-ray binary 4U 0115+63 in outburst. The Astronomer's Telegram 9159 (2016)*.
- Pottschmidt, K., R. Ballhausen, J. Wilms, A. Zezas, F. Fuerst, M.A. Nowak, V. Grinberg, M. Kuehnel, P. Kretschmar, J.A. Tomsick, V. Antoniou, J. Kennea, J. Hong, F. Haberl, T. Maccarone, A. Hornschemeier, A. Ptak, M. Yুক্তita, D. Wik, B. Lehmer, F. Fornasini, A. Bodaghee and V. McBride: *NuSTAR Observations of SMC X-3. The Astronomer's Telegram 9404 (2016)*.
- Pugliese, G., S. Covino, T. Kruehler, D. Xu and N.R. Tanvir: *The bright GRB160203A: X-shooter spectroscopy and redshift. GCN Circ. 18982 (2016)*.
- Punanova, A., P. Caselli, A. Pon, A. Belloche and P. Andre: *VizieR Online Data Catalog: N2H+, N2D+ and C17O spectra in Ophiuchus (Punanova+, 2016)*. VODC 358 (2016).
- Ranalli, P., E. Koulouridis, I. Georgantopoulos, S. Fotopoulou, L.-T. Hsu, M. Salvato, A. Comastri, M. Pierre, N. Cappelluti, F.J. Carrera, L. Chiappetti, N. Clerc, R. Gilli, K. Iwasawa, F. Pacaud, S. Paltani, E. Plionis and C. Vignali: *VizieR Online Data Catalog: 2-10 keV luminosity function of AGN (Ranalli+, 2016)*. VODC 359 (2016).
- Riaz, B., E.L. Martin, R. Tata, J.-L. Monin, N. Phan-Bao and H. Bouy: *VizieR Online Data Catalog: Young stellar objects in NGC 6823 (Riaz+, 2012)*. VODC 741 (2016).
- Rigby, J.R., M.B. Bayliss, M.D. Gladders, K. Sharon, E. Wuyts, H. Dahle, T. Johnson and M. Pena-Guerrero: *C III] emission in star-forming galaxies near and far. VODC 181 (2016)*.
- Rosen, S.R., N.A. Webb, M.G. Watson, J. Ballet, D. Barret, V. Braitto, F.J. Carrera, M.T. Ceballos, M. Coriat, R. Della Ceca, G. Denkinson, P. Esquej, S.A. Farrell, M. Freyberg, F. Grise, P. Guillout, L. Heil, D. Law-Green, G. Lamer, D. Lin, R. Martino, L. Michel, C. Motch, A. Nebot Gomez-Moran, C.G. Page, K. Page, M. Page, M.W. Pakull, J. Pye, A. Read, P. Rodriguez, M. Sakano, R. Saxton, A. Schwope, A.E. Scott, R. Sturm, I. Traulsen, V. Yershov and I. Zolotukhin: *VizieR Online Data Catalog: XMM-Newton Serendipitous Source Catalogue 3XMM-DR5 (XMM-SSC, 2016)*. VODC 9046 (2016).
- Rosen, S.R., N.A. Webb, M.G. Watson, J. Ballet, D. Barret, V. Braitto, F.J. Carrera, M.T. Ceballos, M. Coriat, R. Della Ceca, G. Denkinson, P. Esquej, S.A. Farrell, M. Freyberg, F. Grise, P. Guillout, L. Heil, D. Law-Green, G. Lamer, D. Lin, R. Martino, L. Michel, C. Motch, A. Nebot Gomez-Moran, C.G. Page, K. Page, M. Page, M.W. Pakull, J. Pye, A. Read, P. Rodriguez, M. Sakano, R. Saxton, A. Schwope, A.E. Scott, R. Sturm, I. Traulsen, V. Yershov and I. Zolotukhin: *VizieR Online Data Catalog: XMM-Newton Serendipitous Source Catalogue 3XMM-DR6 (XMM-SSC, 2016)*. VODC 9050 (2016).
- Rykoff, E.S., E. Rozo, M.T. Busha, C.E. Cunha, A. Finoguenov, A. Evrard, J. Hao, B.P. Koester, A. Leauthaud, B. Nord, M. Pierre, R. Reddick, T. Sadibekova, E.S. Sheldon and R.H. Wechsler: *VizieR Online Data Catalog: redMAPPer. I. Algorithm applied to SDSS DR8 (Rykoff+, 2014)*. VODC 178 (2016).
- Scaringi, S., E. Mason, H. Van Winckel and A. Escorza: *Spectroscopic classification of 2MASS\_J16211735+4412541. The Astronomer's Telegram 9122 (2016)*.
- Schady, P., D.A. Kann and J. Greiner: *GROND observations of GRB 160622A/SNR RCW 103/SGR 1617-5103. The Astronomer's Telegram 9184 (2016)*.
- Schulz, R., A. Kreikenbohm, M. Kadler, R. Ojha, E. Ros, J. Stevens, P.G. Edwards, B. Carpenter, D. Elsasser, N. Gehrels, C. Grossberger, H. Hase, S. Horiuchi, J.E.J. Lovell, K. Mannheim, A. Markowitz, C. Muller, C. Phillips, C. Plotz, J. Quick, J. Truedt, A.K. Tzioumis and J. Wilms: *The gamma-ray emitting radio-loud narrow-line Seyfert 1 galaxy PKS 2004-447. II. The radio view. VODC 358 (2016)*.
- Schweyer, T., J. Bolmer and J. Greiner: *GRB 160314A: GROND optical/NIR observations. GCN Circ. 19200 (2016)*.
- Schweyer, T., J. Bolmer, J. Greiner and D.A. Kann: *GRB 160422A: GROND NIR afterglow detection. GCN Circ. 19352 (2016)*.
- Schweyer, T., T.-W. Chen and J. Greiner: *GRB 160625A: GROND upper limits. GCN Circ. 19629 (2016)*.
- Selsing, J., P.M. Vreeswijk, J. Japelj, V. D'Elia, A. de Ugarte Postigo, G. Pugliese, D. Xu, D. Malesani, T. Kruehler and J.P.U. Fynbo: *GRB 160410A: VLT/X-shooter redshift. GCN Circ. 19274 (2016)*.
- Shimizu, T.T., M. Melendez, R.F. Mushotzky, M.J. Koss, A.J. Barger and L.L. Cowie: *VizieR Online Data Catalog: SPIRE observations of Herschel-BAT sample (Shimizu+, 2016)*. VODC 745 (2016).
- Stecklum, B., A. Carattio Garatti, M.C. Cardenas, J. Greiner, T. Kruehler, S. Klose and J. Eisloffel: *The methanol maser flare of S255IR and an outburst from the high-mass YSO S255IR-NIRS3 - more than a coincidence?*

The Astronomer's Telegram 8732 (2016).

Svinkin, D., S. Golenetskii, R. Aptekar, D. Frederiks, A. Kozlova, T. Cline, K. Hurley, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo and C. Ferrigno: IPN Triangulation of GRB 160530A. GCN Circ. 19476 (2016).

Svinkin, D., S. Golenetskii, R. Aptekar, D. Frederiks, A. Kozlova, T. Cline, K. Hurley, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm and D. Palmer: IPN Triangulation of GRB 160219A (short/hard). GCN Circ. 19035 (2016).

Svinkin, D., S. Golenetskii, R. Aptekar, D. Frederiks, A. Kozlova, T. Cline, K. Hurley, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm and D. Palmer: IPN Triangulation of GRB 160820A (short/hard). GCN Circ. 19850 (2016).

Svinkin, D., S. Golenetskii, R. Aptekar, D. Frederiks, A. Kozlova, T. Cline, K. Hurley, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, A. von Kienlin, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm and D. Palmer: IPN Triangulation of GRB 160822A (short/hard). GCN Circ. 19852 (2016).

Svinkin, D., S. Golenetskii, R. Aptekar, D. Frederiks, A. Kozlova, T. Cline, K. Hurley, V. Connaughton, M.S. Briggs, C. Meegan, V. Pelassa, A. Goldstein, X. Zhang, A. Rau, V. Savchenko, E. Bozzo, C. Ferrigno, S. Barthelmy, J. Cummings, N. Gehrels, H. Krimm and D. Palmer: IPN Triangulation of GRB 160225B. GCN Circ. 19095 (2016).

Tanvir, N.R., D. Xu, T. Kruehler, D. Malesani, J.P.U. Fynbo, G. Pugliese, A.J. Levan and Z. Cano: GRB 160425A VLT/X-shooter redshift. GCN Circ. 19350 (2016).

Tanvir, N.R., T. Kruehler, A. De Cia, K. Wiersema, D. Xu and D. Malesani: GRB 161023A VLT/X-shooter redshift. GCN Circ. 20104 (2016).

van der Marel, N., B.W. Verhaar, S. van Terwisga, B. Merin, G. Herczeg, N.F.W. Ligterink and E.F. van Dishoeck: VizieR Online Data Catalog: Transition disk survey (van der Marel+, 2016). VODC 359 (2016).

Vasilopoulos, G., F. Haberl, V. Antoniou and A. Zezas: X-ray outburst of XMMU J004855.5-734946: confirmation as a Be/X-ray binary pulsar. The Astronomer's Telegram 9229 (2016).

Veres, P., A. von Kienlin and C. Meegan: GRB 160917A: Fermi GBM observation. GCN Circ. 19932 (2016).

von Kienlin, A. and C. Meegan: GRB 160406A: Fermi GBM observation. GCN Circ. 19264 (2016).

von Kienlin, A., H.-F. Yu and K. Toelge: GRB 160223B: Fermi GBM observation. GCN Circ. 19061 (2016).

von Kienlin, A.: Fermi GBM trigger 486562774/160602514 is not a GRB. GCN Circ. 19493 (2016).

von Kienlin, A.: Fermi GBM trigger 486907024/160606498 is not a GRB. GCN Circ. 19500 (2016).

Wiegert, T., J. Irwin, A. Miskolczi, P. Schmidt, S.C. Mora, A. Damas-Segovia, Y. Stein, J. English, R.J. Rand, I. Santistevan, R. Walterbos, M. Krause, R. Beck, R.-J. Dettmar, A. Kepley, M. Wezgowiec, Q.D. Wang, G. Heald, J. Li, S. MacGregor, M. Johnson, A.W. Strong, A. Desouza and T.A. Porter: VizieR Online Data Catalog: CHANG-ES. IV. VLA D-configuration observations (Wiegert+, 2015). VODC 515 (2016).

Wiseman, P. and J. Greiner: GRB 160220B: GROND Observations. GCN Circ. 19042 (2016).

Wiseman, P., F. Knust and J. Greiner: GRB 160220A: GROND Optical/NIR Upper Limits. GCN Circ. 19027 (2016).

Wiseman, P., J. Bolmer and J. Greiner: GRB 160220B: Further GROND Observations. GCN Circ. 19052 (2016).

Wiseman, P., J. Bolmer and J. Greiner: GRB 160927A: GROND Observations. GCN Circ. 19959 (2016).

Yates, R., T. Kruehler and J. Greiner: GRB 160410A: GROND optical detection. GCN Circ. 19272 (2016).

Yates, R., T.-W. Chen and J. Greiner: GRB 160411A: GROND Optical/NIR upper limits. GCN Circ. 19292 (2016).

Yu, H.-F., R.D. Preece, J. Greiner, ..., A. Rau, ..., and H.J. van Eerten: The Fermi GBM gamma-ray burst time-resolved spectral catalog: brightest bursts in the first four years. VODC 358 (2016).

Zhang, Y., C. Miller, T. McKay, ..., D. Gruen, et al.: VizieR Online Data Catalog: Galaxies in X-ray clusters with DES.I. Stellar mass (Zhang+, 2016). VODC 181 (2016).



## Poster

- Barnes, A. et al.: Star formation rates on global and cloud scales within the Galactic Centre, The Multi-Messenger Astrophysics of the Galactic Centre, IAU Symposium No. 322, Cairns, Australia, July 2016.
- Behrendt, M. et al.: Origin of the giant clumps at high- $z$ : the bottom-up scenario, ESO - Discs in Galaxies, Garching, Germany, July 2016.
- Cazzoletti, P. et al.: A possible explanation for the position of the dust ring around GG Tau A, Protoplanetary Discussions, Edinburgh, UK, March 2016.
- Cazzoletti, P. et al.: Vortices and spirals in the HD135344B transition disk: millimeter vs. scattered light, 9th IRAM millimeter interferometry school, Grenoble, France, September 2016.
- Chacón-Tanarro, A. et al.: Grain growth towards the pre-stellar core L1544, European Conference on Laboratory Astrophysics - Gas on the Rocks - ECLA 2016, Madrid, Spain, November 2016.
- Collmar, W.: MeV observations of relativistic jet sources, 11th INTEGRAL Conference: Gamma-Ray Astrophysics in Multiwavelength Perspective, Amsterdam, The Netherlands, October 2016.
- Del Moro, A. et al.: The challenge of the Compton-thick AGN identification, eROSITA/CAASTRO/4MOST workshop, Ringberg, Germany, April 2016.
- Facchini, S. et al.: External photoevaporation in sparse stellar clusters: the impact of dust growth, Protoplanetary discussions, Edinburgh, United Kingdom, March 2016.
- Giuliano, B.M. et al.: Optical Characterization of Interstellar Ice Analogues, European Conference on laboratory Astrophysics, ECLA 2016 - Gas on the Rocks, Madrid, Spain, November 2016.
- Hou, J. et al.: Covariance matrices for precision cosmology, Passo del Tonale, Tenth TRR33 Winter school, Passo del Tonale, Italy, December 2016.
- Lin, M.-Y. et al.: Nuclear stellar kinematics of hard X-ray selected AGNs with matched inactive galaxies, Active Galactic Nuclei: what's in a name?, ESO, Munich, Germany, June 2016.
- Lin, M.-Y. et al.: Stellar kinematics of Swift BAT AGNs with matched inactive galaxies, Hidden Monsters 2016, Dartmouth College, Dartmouth, USA, August 2016.
- Lippa, M. et al.: Spatially resolved molecular gas and stellar properties of massive SFGs at  $z \sim 1$ , Discs in Galaxies, Garching, Germany, July 2016.
- Lippa, M. et al.: The metrology system of the VLTI instrument GRAVITY, SPIE Conference - "Optical and Infrared Interferometry and Imaging V", Edinburgh, UK, June 2016.
- Lutz, D. et al.: The far-infrared emitting region in local galaxies and QSOs: Size and scaling relations, In situ view of galaxy formation, Schloss Ringberg, Germany, November 2016.
- Müller, T.G. et al.: Small bodies: near and far (SBNF), COSPAR Scientific Assembly 2016, Istanbul, Turkey, August 2016.
- Müller-Seidlitz, J. et al.: Spectroscopic performance of DEPFET active pixel sensor prototypes suitable for the high count rate ATHENA WFI detector, SPIE Astronomical Telescopes + Instrumentation, Edinburgh, United Kingdom, June 2016.
- Ott, S. et al.: Modeling of DEPFET based X-ray Detectors for Athena's Wide Field Imager, IEEE Nuclear Science Symposium, Strasbourg, France, November 2016.
- Perez-Villegas, A. et al.: Are the metal-poor stars in the Galactic bulge part of the inner stellar halo?, The Milky Way and its environment: gaining insights into the drivers of galaxy formation and evolution, Paris, France, September 2016.
- Perez-Villegas, A. et al.: Inner Stellar Halo in the Milky Way: Predicted Shape and Kinematics, Disc in Galaxies, Garching, Germany, July 2016.
- Sokolov, V. et al.: Multi-component physical conditions of a giant stellar nursery, European Week of Astronomy and Space Science 2016, Athens, Greece, July 2016.
- Sokolov, V. et al.: Unraveling complex kinematics of a giant stellar nursery, Science with APEX, Ringberg Castle, Germany, March 2016.
- Spezzano, S. et al.: Chemical differentiation in L1544, ECLA 2016, European Conference on Laboratory Astrophysics. Gas on the rocks, Madrid, Spain, November 2016.
- Strong, A. et al.: COMPTel Reloaded: New Initiatives in Heritage MeV Gamma-Ray Astronomy, Gamma 2016, Heidelberg, Germany, July 2016.
- Szücs, L. et al.: On the caveats of tracing molecular gas with CO emission, Star Formation 2016, Exeter, United Kingdom, August 2016.
- Übler, H. et al.: The Tully-Fisher relation at  $0.6 < z < 2.7$  with KMOS<sup>3D</sup>, Discs in Galaxies, 2016 Munich Joint Conference, Garching, Germany, July 2016.
- von Kienlin, A.: The Fourth Fermi GBM Gamma-Ray Burst Catalog: The First Eight Years, 8th Huntsville Gamma-Ray Burst Symposium, Huntsville, USA, October 2016.
- Yu, H.-F. et al.: An Exploration of Issues with GBM GRB Spectroscopy, The Eighth Huntsville Gamma-Ray Burst Symposium, Huntsville, AL, USA, October 2016.
- Zhao, B. et al.: Protostellar Disk Formation Enabled by Removal of Small Dust Grains, Star formation, magnetic fields, and diffuse matter in the galaxy, Madison, USA, May 2016.

## Talks

- Alves, F.O.: A Magnetized Prestellar Core: Polarization and Kinematics, contributed talk, Science With the Atacama Pathfinder Experiment (APEX), Ringberg Castle, Germany, March 2016.
- Alves, F.O.: An ALMA view of B59: from collapsing cores to pre-Kuiper Belt structures, contributed talk, Star Formation in Different Environments, Quy Nhon, Vietnam, July 2016.
- Alves, F.O.: An ALMA view of B59: from embedded disks to pre-Kuiper Belt structures, contributed talk, The Early Phase of Star Formation, Ringberg Castle, Germany, June 2016.
- Alves, F.O.: From Planck to ALMA: a multi-scale view of magnetized environments, colloquium, Harvard-Smithsonian Center for Astrophysics, Cambridge, USA, March 2016.
- Alves, F.O.: Multi-wavelength polarimetry and kinematics in star forming regions: magnetic fields and kinematics, colloquium, RIKEN (Star and Planet Formation Laboratory), Tokyo, Japan, October 2016.
- Alves, F.O.: Polarization and chemistry in the early stages of star formation, invited talk, Workshop on Interstellar Matter 2016, Sapporo, Japan, October 2016.
- Barnes, A.: Star formation rates and efficiencies in the Galactic Centre, contributed talk, The University of Sydney; The 2016 Astronomical Society of Australia's: Annual Scientific Meeting, Sydney, Australia, July 2016.
- Behrendt, M.: Clusters of small clumps can explain the peculiar properties of giant clumps in high-redshift galaxies, invited talk, Institute for Computational Science - University of Zurich, Zurich, Switzerland, February 2016.
- Behrendt, M.: The origin of the giant clumps in high-z galaxies: The bottom-up scenario!, colloquium, Cosmology Seminar, Max-Planck-Institute for astrophysics, Garching, Germany, March 2016.
- Belli, S.: How did galaxies quench? Clues from absorption and emission lines in high-z quiescent galaxies, invited talk, In Situ View of Galaxy Formation, Ringberg, Germany, November 2016.
- Belli, S.: MOSFIRE spectroscopy of quiescent galaxies at high redshift, invited talk, Lorentz Center, Leiden, The Netherlands, August 2016.
- Bodendorf, C.: Optische Messtechnik beim Euclid Weltraumteleskop, invited talk, OPTOCRAFT Workshop 2016 Charakterisierung und Justage optischer Systeme mittels Shack-Hartmann Wellenfrontsensoren, Erlangen, Germany, November 15 2016.
- Boller, Th.: 4MOST Survey Strategy and Science Optimization, contributed talk, 4MOST All Hands Meeting, Heidelberg, Germany, September 2016.
- Boller, Th.: Anfang und Ende des Universums, public talk, Festvortrag zur 30-jährigen Charterfeier der Rotary Clubs Germering, Kloster Andechs, Germany, April 2016.
- Boller, Th.: Die Entwicklung des Universums, public talk, Lions Club Freising, Freising, Germany, April 2016.
- Boller, Th.: The Beginning and the End of the Universe, invited talk, 44th Annual Meeting of the European Society of Dermatological Research, Munich, Germany, September 2016.
- Boller, Th.: The second ROSAT X-ray all-sky survey, invited talk, Multifrequency Behaviour of High Energy Cosmic Sources, Frascati Workshop 2016, Palermo, Italy, May 2016.
- Boller, Th.: X-ray all-sky surveys: from 2RXS to eROSITA, invited talk, IWARA 2016 — 7th International Workshop on Astronomy and Relativistic Astrophysics, Gramado, Brazil, October 2016.
- Caselli, P.: The cold interstellar medium and star formation, invited talk, Annual meeting of the German Astronomical Society, Plenary Talk, Bochum, Germany, September 2016.
- Caselli, P.: Astrochemical diagnostics of star and planet formation, invited talk, Laboratory Astrophysics Division of the AAS: Bridging Laboratory & Astrophysics, San Diego, USA, June 2016.
- Caselli, P.: Astrochemistry and the first steps toward star and planet formation, colloquium, Munich Physics Colloquium, Ludwig-Maximilians-Universität München, Munich, Germany, January 2016.
- Caselli, P.: Astrochemistry and the first steps toward star and planet formation, colloquium, University of Hamburg, Hamburg, Germany, February 2016.
- Caselli, P.: Astrochemistry at the dawn of star and planet formation, colloquium, Department of Chemistry, University of Florida, Gainesville, USA, Gainesville, USA, November 2016.
- Caselli, P.: Astrochemistry at the dawn of star and planet formation, colloquium, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, USA, November 2016.
- Caselli, P.: Astrochemistry at the dawn of star and planet formation, contributed talk, Nanosystems Initiative in Munich - Molecular Origins of Life, Munich, Germany, September 2016.
- Caselli, P.: Astrochemistry in different environments, invited talk, Star Formation in Different Environments, Quy Nhon, Vietnam, July 2016.
- Caselli, P.: Astrochemistry in the earliest stages of star formation, invited talk, ECLA2016 - Gas on the Rocks, Madrid, Spain, November 2016.
- Caselli, P.: Astrochemistry with SOFIA, invited talk, SOFIA Community Tele-Talk Series, Pasadena, USA, June 2016.
- Caselli, P.: Chemistry at the dawn of star formation and links to our Solar System, colloquium, Max-Planck-Institute Sonnensystemforschung, Goettingen, Germany, February 2016.

- Caselli, P.: Chemistry at the dawn of star formation and links to our Solar System, colloquium, University of Maryland, College Park, USA, February 2016.
- Caselli, P.: D and  $^{15}\text{N}$  fractionation in pre-stellar cores, contributed talk, Fractionation of isotopes in space: from the Solar System to galaxies, Florence, Italy, October 2016.
- Caselli, P.: Hydride Isotopologue, invited talk, The Hydride Toolbox, Paris, France, December 2016.
- Caselli, P.: The deuteration of interstellar molecules and links to our Solar System, invited talk, The first Italian workshop on astrochemistry: Astronomical Complex Organic Molecules in different environments, Florence, Italy, March 2016.
- Caselli, P.: The first steps toward star and planet formation: an astrochemical journey, colloquium, University College London, London, UK, February 2016.
- Caselli, P.: The importance of high resolution molecular spectroscopy in astrophysics, invited talk, The 24th International Conference on High Resolution Molecular Spectroscopy, Prague, Czech Republic, August 2016.
- Caselli, P.: Water in pre-stellar cores, invited talk, Water in the Universe: from Clouds to Oceans, Noordwijk, The Netherlands, April 2016.
- Cazzoletti, P.: The dust ring in the protoplanetary disk around the GG Tauri - a binary star, colloquium, Institute for Astronomy, University of Hawaii, Honolulu, USA, November 18, 2016.
- Chacon-Tanarro, A.: Search of grain growth towards the center of the pre-stellar core L1544, contributed talk, European Week of Astronomy and Space Science 2016, Athens, Greece, July 2016.
- Chacon-Tanarro, A.: Search of grain growth towards the center of the pre-stellar core L1544, contributed talk, European Week of Astronomy and Space Science 2016, Athens, Greece, July 2016.
- Collmar, W.: Monitoring the Sky at soft Gamma-ray Energies with CGRO/COMPTEL for nine Years, contributed talk, HAP Workshop: Monitoring the non-thermal Universe, Cochem, Germany, December 2016.
- Davies, R.L.: Separating Star Formation and AGN Activity in Galaxies, invited talk, In Situ View of Galaxy Formation, Schloss Ringberg, Germany, November 2016.
- Davies, R.L.: Separating Star Formation and AGN Activity in Galaxies, contributed talk, Astronomical Society of Australia, Sydney, Australia, July 2016.
- Davies, R.: ERIS: a workhorse diffraction limited imager & spectrograph, invited talk, VLT Adaptive Optics Community Days, Munich, Germany, September 2016.
- Davies, R.: How the role of environment in fuelling AGN depends on the host galaxy, contributed talk, Hidden Monsters: Obscured AGN and Connections to Galaxy Evolution, Dartmouth, USA, August 2016.
- Davies, R.: MICADO: First Light Imager for the E-ELT, contributed talk, Ground-based and Airborne Instrumentation for Astronomy VI, Edinburgh, UK, June 2016.
- Davies, R.: MICADO: First Light Imager for the E-ELT, contributed talk, Scientific and Instrumental Perspectives for the E-ELT, Bochum, Germany, September 2016.
- Del Moro, A.: Average hard X-ray spectral properties of the NuSTAR AGNs, contributed talk, Hidden Monsters - Obscured AGN and connections to galaxy evolution (Dartmouth College), Hanover, USA, August 2016.
- Del Moro, A.: Hard X-ray spectral properties of distant AGN in the NuSTAR surveys, contributed talk, AGN: What's in a name? (ESO-Garching), Garching, Germany, June 2016.
- Del Moro, A.: X-ray spectral analysis of NuSTAR AGN: Broad-band (2-40 keV) average spectral properties, contributed talk, NuSTAR science meeting (Caltech), Pasadena, California (USA), November 2016.
- Dennerl, K.: An empirical method for improving the XMM-Newton/EPIC-pn RMF and ARF, contributed talk, 11th International Astronomical Consortium for High Energy Calibration (IACHEC) Meeting, Pune, India, February 2016.
- Dennerl, K.: Determination of the eROSITA PSF, invited talk, IX. International Workshop on Astronomical X-Ray Optics 2016, Prague, Czech Republic, December 2016.
- Dennerl, K.: eROSITA Calibration, contributed talk, eROSITA Consortium Meeting, Tübingen, Germany, September 2016.
- Dexter, J.: Event Horizon Scale Emission Models of Sgr A\* and M87, invited talk, Simulations and Modelling of Relativistic MHD Accretion Discs, Oxford, UK, July 2016.
- Dexter, J.: Event horizon scale polarization around Sgr A\* and M87, contributed talk, Event Horizon Telescope 2016, Cambridge, USA, November 2016.
- Dexter, J.: Exploring Strong Gravity in the Galactic Center, colloquium, Astronomical Institute of the Charles University, Prague, Czech Republic, November 2016.
- Dexter, J.: GRMHD simulations of the black hole shadow in Sgr A\* and M87, invited talk, Black Holes and Black Hole Alternatives, Oldenburg, Germany, October 2016.
- Dexter, J.: Resolving the Event Horizon of the Galactic Center Black Hole, colloquium, Astronomical Institute of the Czech Academy of Sciences, Prague, Czech Republic, November 2016.
- Diehl, R.: Chemical evolution and nuclear astrophysics, contributed talk, Community Meeting "Nuclear Astrophysics in Germany", Darmstadt, Germany, November 2016.
- Diehl, R.: Gamma ray diagnostics of supernova explosions, contributed talk, MIAPP Conference "Supernovae", Garching, Germany, September 2016.
- Diehl, R.: Gamma ray telescopes and diffuse gamma ray line emissions, invited talk, Carpathian school of physics, Sinaia, Romania, July 2016.
- Diehl, R.: Gamma rays from SN2014J, contributed talk, XVIIIth Workshop on Nuclear Astrophysics, Ringberg Castle, Germany, March 2016.
- Diehl, R.: Insights from cosmic gamma rays, colloquium, Astrophysics Colloquium of Physics Department of University of Tokyo, Tokyo, Japan, June 2016.
- Diehl, R.: Insights from cosmic gamma rays, invited talk,

- Astrophysics Seminar of ISAS/JAXA, Fuchinobe, Japan, June 2016.
- Diehl, R.: Insights from cosmic gamma rays, invited talk, Astrophysics Seminar of Kavli Institute for Mathematics of the Universe, Kashiwanoha, Japan, June 2016.
- Diehl, R.: Insights from cosmic gamma rays, invited talk, Astrophysics Seminar of Kyoto University, Kyoto, Japan, May 2016.
- Diehl, R.: Insights from cosmic gamma rays, invited talk, Astrophysics Seminar of National Astronomical Observatory of Japan, Mitaka, Japan, June 2016.
- Diehl, R.: Interstellar Gas across the Universe, contributed talk, Community Meeting "Nuclear Astrophysics in Germany", Darmstadt, Germany, November 2016.
- Diehl, R.: Lessons from Cosmic Gamma Ray Observations, invited talk, Brainstorming Meeting "Nuclear Astrophysics", Basel, Switzerland, September 2016.
- Diehl, R.: Lessons from cosmic gamma ray observations, colloquium, Institutskolloquium, Helmholtz-Institut für Kernphysik, Bonn, Germany, January 2016.
- Diehl, R.: Lessons on supernova explosions from cosmic gamma rays, invited talk, Carpathian school of physics, Sinaia, Romania, July 2016.
- Diehl, R.: News from cosmic gamma rays, invited talk, Symposium "Nuclei in the Cosmos XIV", Niigata, Japan, June 2016.
- Diehl, R.: Pair plasma in recent V404 Cygni flares, invited talk, American Physics Society Press Conference, Salt Lake City, USA, April 2016.
- Diehl, R.: Pair plasma in recent V404 Cygni observations, contributed talk, American Physics Society Conference, Salt Lake City, USA, April 2016.
- Diehl, R.: Perspectives for Nuclear Astrophysics, invited talk, Science Week of Excellence Cluster "Universe", Garching, Germany, Dezember 2016.
- Diehl, R.: Radioactivity gamma rays and the Galaxy's large scale structure, contributed talk, Int. Conference "The Milky Way and its Environment", Paris, France, September 2016.
- Diehl, R.: The INTEGRAL Legacy, contributed talk, XVIIth Workshop on Nuclear Astrophysics, Ringberg Castle, Germany, March 2016.
- Diehl, R.: The INTEGRAL Legacy, invited talk, Winter School on Nuclear Astrophysics, Russbach, Austria, March 2016.
- Dwelly, T.: 4MOST Facility Simulator: capabilities and results, contributed talk, 4MOST All Hands Meeting 2016, Heidelberg, Germany, September 2016.
- Dwelly, T.: The 4MOST Operations System, contributed talk, SPIE Astronomical Telescopes + Instrumentation 2016, Edinburgh, UK, July 2016.
- Eisenhauer, F.: First Light for GRAVITY, invited talk, Astronomical Telescopes + Instrumentation, Edinburgh, Scotland, June 2016.
- Endres, C.P.: Collision induced transitions of ammonia revisited, contributed talk, Workshop on Laboratory Astrophysics: Interstellar Gas, Dust and Ice, Kreuth, Germany, September 2016.
- Endres, C.P.: The SOLEIL View on Prototypical Organic Nitriles: Selected Vibrational Modes of Ethyl Cyanide, C<sub>2</sub>H<sub>5</sub>CN, and Spectroscopic Analysis using an Automated Spectral Assignment Procedure (ASAP), contributed talk, International Symposium on Molecular Spectroscopy, Champaign - Urbana, Illinois, USA, June 2016.
- Facchini, S.: The impact of external photoevaporation on protoplanetary discs: the impact of dust growth, invited talk, ESO, Garching bei München, Germany, March 2016.
- Feng, S.: Complex Organics in high-mass star-forming regions, colloquium, Complex Organic Molecules in Space, Pisa, Italy, March 2016.
- Feng, S.: Outflow detection in a 70 micron dark high-mass core, colloquium, European Week of Astronomy and Space Science 2016, Athens, Greece, July 2016.
- Fossati, M.: Witnessing the onset of environmental quenching at  $z = 1-2$ . Results from 3D-HST, contributed talk, Physics of Groups and Galaxy Properties therein, Paris, France, December 2016.
- Fossati, M.: Witnessing the onset of environmental quenching at  $z=1-2$ . Results from 3D-HST, contributed talk, The galaxy life-cycle. From activity to quiescence, and back, across cosmic time, Venice, Italy, October 2016.
- Friedrich, P.: The eROSITA X-ray Telescope: Design, Development, Manufacturing, Test and Calibration, invited talk, 9th International Workshop on Astronomical X-Ray Optics Prague, Prague, Czech Republic, December 2016.
- Förster Schreiber, N. M.: Galaxy Evolution and Outflows from KMOS3D and SINS/zC-SINF, invited talk, In Situ View of Galaxy Formation, Ringberg, Germany, November 2016.
- Förster Schreiber, N.M.: Galaxy Evolution at the Peak Epoch of Cosmic Star Formation: Witnessing In-situ the Growth and Transformations of Young Galaxies, colloquium, Tel Aviv University, Tel Aviv, Israel, May 2016.
- Förster Schreiber, N.M.: Galaxy Evolution at the Peak Epoch of Cosmic Star Formation: Witnessing In-situ the Growth and Transformations of Young Galaxies, colloquium, The Hebrew University of Jerusalem, Jerusalem, Israel, May 2016.
- Förster Schreiber, N.M.: Outer regions and growth of high-redshift disk galaxies, invited talk, IAU Symposium 321: Formation and Evolution of Galaxy Outskirts, Toledo, Spain, March 2016.
- Förster Schreiber, N.M.: Spatially-Resolved Spectroscopy across 5 Gyrs of Cosmic Time, invited talk, Spectroscopy through the Ages, Leiden, The Netherlands, May 2016.
- Förster Schreiber, N.M.: Witnessing In-situ the Growth and Transformations of Galaxies at Cosmic Noon, invited talk, Panoramas of the Evolving Cosmos: 6th Subaru International Conference, Hiroshima, Japan, November 2016.
- Genzel, R.: Astronomische Forschung mit Weltraumgestützten Teleskopen, invited talk, Symposium Forum Technologie "Forschung mit Satelliten", Bayerische Aka-

- demie der Wissenschaften, Munich, Germany, April 2016.
- Genzel, R.: Massive Black Holes and Galaxies, public talk, FBBVA Foundation, Madrid, Spain, October 2016.
- Genzel, R.: Molecular Gas and Quenching in Star Forming Galaxies at the Peak Epoch of Cosmic Star Formation, invited talk, OPINAS Group Ringberg Meeting, Schloss Ringberg, Kreuth, Germany, March 2016.
- Genzel, R.: Schwarze Löcher — die gigantischen Zentren der Galaxien, invited talk, Exhibition "Einstein Inside", Heidelberg, Germany, October 2016.
- Genzel, R.: Status of the GRAVITY Project, colloquium, Noon Talk, University of California, Berkeley, USA, January 2016.
- Genzel, R.: The Formation and Evolution of Massive Star Forming Disk Galaxies, invited talk, Munich Joint Conference "Discs in Galaxies", Garching, Germany, July 2016.
- Genzel, R.: Evolution of Massive Star Forming Disks at  $z \sim 1-3$ , invited talk, Meeting "From Stellar Evolution to Galaxy Formation" in Honor of Alvio Renzini's 65th Birthday, Nagano, Japan, March 2016.
- Genzel, R.: Formation/evolution of star forming disk galaxies at the peak of galaxy formation, colloquium, ESO Vitacura, Santiago, Chile, April 2016.
- Genzel, R.: Mass budgets and quenching of  $z=1-2$  star forming galaxies, invited talk, Santa Cruz Workshop on Galaxy Formation, Santa Cruz, USA, August 2016.
- Genzel, R.: Massive Black Holes and Galaxies, invited talk, CERN, Geneva, Switzerland, May 2016.
- Genzel, R.: Massive Schwarze Löcher und Galaxien, invited talk, Symposium in Honor of Nobel Awardee Harald zur Hausen, DKFZ (German Cancer Research Center), Heidelberg, Germany, March 2016.
- Genzel, R.: Opening of the meeting, invited talk, "In Situ View of Galaxy Formation", Kreuth, Germany, November 2016.
- Genzel, R.: Recent Results of the KMOS<sup>3D</sup> spectroscopic Survey, colloquium, Physics Department, University of California, Berkeley, USA, January 2016.
- Genzel, R.: Schwarze Löcher - die gigantischen Zentren der Galaxien, public talk, public talk series "Physik im Theater", Mainz, Germany, October 2016.
- Genzel, R.: Schwarze Löcher und Galaxien, invited talk, ÖAW (Austrian Academy of Sciences), Feierliche Sitzung, Vienna, Austria, May 2016.
- Genzel, R.: The Galactic Center Black Hole: a Quest, colloquium, Astronomy Department, University of Chile, Santiago, Chile, April 2016.
- Genzel, R.: The Galactic Center Black Hole: a Quest, invited talk, EWASS 2016 (European Week of Astronomy and Space Science), Athens, Greece, July 2016.
- George, E.M.: Disobedience: Breaking the Rules for Social Good (panel discussion), invited talk, Forbidden Research, Cambridge, Massachusetts, USA, July 2016.
- George, E.M.: Hacking Culture, invited talk, Forbidden Research, Cambridge, Massachusetts, USA, July 2016.
- George, E.M.: Interplanetary Colonization, contributed talk, Chaos Communications Congress, Hamburg, Germany, December 2016.
- George, E.M.: Making SPIFFI SPIFFIER: Upgrade of the SPIFFI instrument for use in ERIS and performance analysis from re-commissioning, contributed talk, 2016 SPIE Astronomical Telescopes and Instrumentation, Edinburgh, Scotland, June 2016.
- George, E.M.: The beginning of the universe from the bottom of the world., public talk, Nerd Nite München, Munich, Germany, March 2016.
- Gerhard, O.: A coherent dynamical model for the inner Galaxy: bulge, long bar, disk, and halo, contributed talk, Elizabeth and Frederick White Research Conference Galactic archeology and stellar physics, Canberra, Australia, November 2016.
- Gerhard, O.: Bulge models, invited talk, EWASS, Spec. Sess.6. The life and times of the Milky Way bulge, Athens, Greece, July 2016.
- Gerhard, O.: The Milky Way in the age of Gaia, invited talk, Excellence Cluster Science Meeting, Garching, Germany, December 2016.
- Gerhard, O.: The bulge and bar in the Milky Way, invited talk, The secular evolution of self-gravitating systems over cosmic ages, Paris, France, May 2016.
- Gerhard, O.: The large-scale structure of the Milky Way, invited talk, Galactic Surveys: New Results on Formation Evolution Structure and Chemical Evolution of the Milky Way, Sesto, Italy, January 2016.
- Gillessen, S.: An application of GAIA in the Galactic Center, contributed talk, GAIA Workshop, HdA, Heidelberg, Germany, November 2016.
- Gillessen, S.: Schwarze Löcher - Science Fiction oder Realität?, public talk, Volkssternwarte München, Munich, Germany, March 2016.
- Gillessen, S.: Schwarze Löcher - Science Fiction oder Realität?, public talk, Ludwig-Maximilians-Universität München, Reihe Physik Modern, Munich, Germany, October 2016.
- Gillessen, S.: Schwarze Löcher - Science Fiction oder Realität?, public talk, Nerd-Nite, Munich, Germany, June 2016.
- Gillessen, S.: Stellar orbits around Sgr A\* and GRAVITY, colloquium, Uni Bochum, Bochum, Germany, September 2016.
- Gillessen, S.: The Galactic Center - unique astrophysical laboratory, invited talk, MAGIC Collaboration Meeting, Zurich, Switzerland, June 2016.
- Gillessen, S.: The Galactic Center - a unique astrophysical laboratory, colloquium, Physics Faculty of Adam Mickiewicz University, Poznan, Poland, January 2016.
- Gillessen, S.: The Galactic Center - a unique astrophysical laboratory, invited talk, Models of Gravity - Black Holes, Neutron Stars, and the structure of space-time, Oldenburg, Germany, October 2016.
- Gillessen, S.: The massive black hole in the Galactic Cen-

- ter, invited talk, FEUP Porto, Porto, Portugal, June 2016.
- Gillessen, S.: The tidal disruption of the gas cloud G2 in the Galactic Center, invited talk, Aspen Center for Physics, Aspen, USA, February 2016.
- Giuliano, B. M.: Spectroscopic Characterization of Interstellar Ice Analogues, contributed talk, Ringberg Workshop on Laboratory Astrophysics, Ringberg Castle, Germany, September 2016.
- Goto, M.: Water ice in the Pipe Nebula and beyond, contributed talk, Laboratory Astrophysics: Interstellar Gas, Dust and Ice, Ringberg, Germany, September 2016.
- Goto, M.: Water ice in the Pipe Nebula, contributed talk, IceAge - The Era of the James Webb Space Telescope, Leiden, The Netherlands, October 2016.
- Goto, M.: Why I need laser guide star for CRIRES, contributed talk, VLT Adaptive Optics Community Days Garching 2016, Garching, Germany, September 2016.
- Haberl, F.: Das turbulente Herz der Milchstraße - Beobachtungen des Galaktischen Zentrums mit dem Röntgen-Satelliten XMM-Newton, public talk, Astronomie Stiftung Trebur, Trebur, Germany, April 2016.
- Haberl, F.: EXTrAS discovery of two pulsators in the direction of the LMC, invited talk, Exploring the X-ray Transient and Variable Sky, Pavia, Italy, November 2016.
- Haberl, F.: Highlights from the XMM-Newton X-ray surveys of the Magellanic Clouds, invited talk, Mondello Workshop 2016 on Frontier Research in Astrophysics, Palermo, Italy, May 2016.
- Haberl, F.: What have we learned from the XMM-Newton surveys of Local Group Galaxies?, invited talk, XMM-Newton: The Next Decade, Madrid, Spain, May 2016.
- Habibi, M.: A Paradox of Youth: Spectral Study of S-stars in the Galactic center, contributed talk, 631. Wilhelm und Else Heraeus-Seminar: Stellar aggregates over mass and spatial scales, Bad Honnef, Germany, December 2016.
- Habibi, M.: Spectral study of S- stars in the Galactic center., contributed talk, Dynamics and accretion at the Galactic Center, Aspen, USA, February 2016.
- Haerendel, G.: Kometenschweife, invited talk, Conference "Kometen", Evangelische Akademie Tutzing, Germany, April 2016.
- Haerendel, G.: Commonalities between auroral arcs and solar flares, invited talk, AGU Chapman Conference on Currents in Geospace and Beyond, Dubrovnik, Croatia, May 2016.
- Haerendel, G.: Stürme im Erdmagnetfeld und das Polarlicht, public talk, Ballonmuseum Gersthofen, Germany, May 2016.
- Haerendel, G.: A Peek behind the Scenes of a Space Scientist's Life, invited lecture, Munich-times In Aerospace - Summer School, Herrsching, Germany, June 2016.
- Herrera-Camus, R.: Thermal Pressure and Ionized gas in Nearby Galaxies, contributed talk, Feedback Processes and Modelling of the ISM, Freising, Germany, March 2016.
- Herrera-Camus, R.: Molecular Gas Studies at  $z > 1$  as pursued at MPE IR/sub-mm group, invited talk, Physical Characteristics of Normal Galaxies at  $z > 2$ , Leiden, Netherlands, October 2016.
- Herrera-Camus, R.: Probing the Multiphase Interstellar Medium in Nearby Galaxies through Far-infrared Spectroscopy, colloquium, ALMA Science Center, Santiago, Chile, January 2016.
- Herrera-Camus, R.: Probing the Multiphase Interstellar Medium in Nearby Galaxies through Far-infrared Spectroscopy, colloquium, Universidad de Valparaiso, Valparaiso, Chile, January 2016.
- Herrera-Camus, R.: Using far-infrared transitions to study star formation activity in galaxies, contributed talk, How Galaxies form Stars, Stockholm, Sweden, August 2016.
- Herrera-Camus, R.: [CII] line emission in local and high- $z$  galaxies, invited talk, In Situ View of Galaxy Formation, Ringberg, Germany, November 2016.
- Hocuk, S.: How chemistry influences Cloud structure, Star formation, and the IMF, invited talk, New York University Abu Dhabi (NYUAD), Abu Dhabi, U.A.E., April 2016.
- Hocuk, S.: Investigations and Explorations of the Interstellar Dust Temperature: from small grains to the big picture, contributed talk, Nova Network II, Leiden, The Netherlands, October 2016.
- Hocuk, S.: Sizes in the Universe, Miracles in Space, public talk, Münchener Akademiker Plattform, Munich, Germany, January 2016.
- Hocuk, S.: The Temperature of Interstellar Dust, contributed talk, Multiple Faces of Interstellar Dust, Garching, Germany, September 2016.
- Janssen, A.W.: Broad [CII] line wings as tracer of molecular outflows in local ULIRGs, colloquium, ASTRON, Dwingeloo, The Netherlands, June 2016.
- Janssen, A.W.: Broad [CII] line wings as tracer of molecular outflows in local ULIRGs, colloquium, Leiden University, Leiden, The Netherlands, June 2016.
- Janssen, A.W.: Broad wings in [CII] as tracers of molecular outflows, contributed talk, Sweeping galaxies clean, cold molecular outflows as driver of galaxy evolution. Sexten center for astrophysics, Sexten, Italy, February 2016.
- Käfer, F.: Surface brightness characterisation and evolution of galaxy clusters, contributed talk, German eROSI-TA Consortium meeting, Tübingen, Germany, September 2016.
- Käfer, F.: eHIFLUGCS: Scaling properties of an XMM-Newton galaxy cluster subsample, contributed talk, Alpine Cosmology Workshop, Bolzano, Italy, July 2016.
- Kanbach, G.: The Legacy of EGRET on CGRO, invited talk, CGRO Anniversary Science Session, GSFC, Greenbelt, USA, June 2016.
- Kanbach, G.: MEGA: a project for Medium Energy Gamma-ray Astronomy (0.4 - 50 MeV), invited talk, Workshop 'MeV Gamma-Ray Mission Concepts', Universität Würzburg, Würzburg, Germany, July 2016.
- Klecker, B.: Energetic particle ionic charge composition: a clue to their sources and acceleration, colloquium, Purple Mountain Observatory, Nanjing, China, October 2016.

- Laas, J.: Submillimeter Spectroscopy of Methoxy (CH<sub>3</sub>O) for Interstellar Searches, contributed talk, 71st International Symposium on Molecular Spectroscopy, Champaign-Urbana, IL, USA, June 2016.
- Lattanzi, V.: Laboratory Measurements and Astronomical Search of the HSO Radical, contributed talk, 71st International Symposium on Molecular Spectroscopy, Urbana-Champaign, USA, June 2016.
- Lattanzi, V.: Submillimeter wave spectroscopy of HOCO+ and DOCO+, contributed talk, Workshop on LABORATORY ASTROPHYSICS: Interstellar Gas, Dust and Ice, Tagungstätte Schloss Ringberg, Kreuth, Germany, September 2016.
- Lattanzi, V.: The Center for Astrochemical Studies at the Max Planck Institute for Extraterrestrial Physics., contributed talk, 71st International Symposium on Molecular Spectroscopy, Urbana-Champaign, USA, June 2016.
- Lutz, D.: Co-Evolution of AGN and star formation, contributed talk, New Frontiers in Far-infrared and Sub-millimeter Astronomy, Aspen, USA, June 2016.
- Lutz, D.: Dust and gas shaping the evolution of high-redshift galaxies, invited talk, The multiple faces of interstellar dust, Garching, Germany, September 2016.
- Lutz, D.: The ISM content of galaxies up to  $z \sim 2.5$ , contributed talk, New Frontiers in Far-infrared and Sub-millimeter Astronomy, Aspen, USA, June 2016.
- Lutz, D.: The far-infrared emitting region in local galaxies and QSOs: Size and scaling relations, contributed talk, Discs in Galaxies, Garching, Germany, July 2016.
- Maier, P.: Abwehr von Asteroiden, public talk, Beitrag zur Folge "Asteroiden - die Bedrohung aus dem Kosmos" der N-24 Dokumentationsreihe "Spacetime", Munich, Germany, October 2016.
- Maier, P.: Die Abwehr von Asteroiden, public talk, Vortragsabend zum Asteroid Day, Lehrstuhl für Raumfahrttechnik der TUM, Universität der Bundeswehr München, Munich, Germany, June 2016.
- Maier, P.: On the potential of balloon-based telescopes to detect spectral evidence of mineable materials, contributed talk, Asteroid Science Intersections with In-Space Mine Engineering, Luxembourg, Luxembourg, September 2016.
- Meidinger, N.: Athena WFI Calibration, contributed talk, Athena Calibration Workshop, Utrecht, The Netherlands, January 2016.
- Meidinger, N.: MPE's views on SDDs as focal plane detectors for SFA, contributed talk, eXTP Workshop, Shanghai, China, March 2016.
- Meidinger, N.: The Wide Field Imager Instrument for ATHENA, invited talk, Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray, Edinburgh, Great Britain, July 2016.
- Meidinger, N.: The Wide Field Imager for Athena, invited talk, Athena WFI consortium meeting, Garching, Germany, March 2016.
- Meidinger, N.: X-ray cameras from XMM-Newton to eROSITA up to Athena, invited talk, Interdisciplinary Cluster Workshop "Detectors and Instrumentation", Garching, Germany, May 2016.
- Meidinger, N.: X-ray detector development from XMM-Newton to eROSITA up to Athena, invited talk, ESOC Seminar, Darmstadt, Germany, April 2016.
- Meidinger, N.: XMM-Newton EPIC-PN, eROSITA, Athena-WFI X-ray cameras, invited talk, AHEAD Background Workshop, Rome, Italy, November 2016.
- Meidinger, N.: eROSITA Camera Assembly, invited talk, eROSITA Consortium Meeting, Tübingen, Germany, September 2016.
- Merloni, A.: AGN evolution, a panchromatic view, invited talk, Finding Extremely Relativistic Objects, 8th meeting, Hnanice, Czech Republic, September 2016.
- Merloni, A.: Accretion discs, Broad Line Regions and Narrow line regions, invited talk, ESO-Athena Synergy Workshop, Garching, Germany, September 2016.
- Merloni, A.: Prospects for wide area surveys: the eROSITA-4MOST Synergy, invited talk, ESO-Athena Synergy Workshop, Garching, Germany, September 2016.
- Merloni, A.: SPIDERS, invited talk, eBOSS collaboration meeting, Lausanne, Switzerland, February 2016.
- Merloni, A.: eROSITA on SRG, invited talk, NuSTAR Meeting, Pasadena, USA, November 2016.
- Merloni, A.: eROSITA, invited talk, Follow-up of wide-area X-ray surveys, Ringberg Castle, Germany, April 2016.
- Müller, T.G.: 162173 Ryugu (1999 JU3): Predictions of size, shape, spin, thermal properties, and grain sizes, invited talk, Hayabusa-2 Joint Science Team Meeting, ISAS Tokyo, Japan, November 2016.
- Müller, T.G.: 162173 Ryugu (1999 JU3): Surface properties derived from remote (thermal) observations, contributed talk, International Regolith Science Group Meeting, Tokyo, Japan, November 2016.
- Müller, T.G.: Abwehr von Asteroiden, public talk, "Asteroiden - die Bedrohung aus dem Kosmos" der N-24 Dokumentationsreihe "Spacetime", Munich, Germany, July 2016.
- Müller, T.G.: Asteroiden: Gefahr aus dem All?, public talk, Lions Club Schleißheim, Oberschleißheim, Germany, October 2016.
- Müller, T.G.: Asteroids in the thermal infrared, colloquium, Japan-wide transmitted institute colloquium, Kobe, Japan, December 2016.
- Müller, T.G.: Die Charakterisierung von Asteroiden, public talk, Asteroid Day, Munich, Germany, June 2016.
- Müller, T.G.: Faszination Sonnensystem: Kleine Körper, exotische Welten, Planet X?, public talk, Excellence Cluster Universe; Begabungsstützpunkt Astronomie Erding, Garching, Germany, July 2016.
- Müller, T.G.: Kleinplanet Garching, public talk, VHS München Nord, Garching, Germany, January 2016.
- Müller, T.G.: Planet IX: Evidence for a trans-Kuiper-Belt planet?, colloquium, Excellence Cluster Universe; Special

Universe Talk, Garching, Germany, February 2016.

Müller, T.G.: Ryugu's surface properties from remote thermal observations, contributed talk, Multiscale Asteroid Science Group Meeting, Tokyo, Japan, December 2016.

Müller, T.G.: Small Bodies: Near and Far (SBNF): NEA benchmark studie, contributed talk, ASIME 2016: Asteroid Science Intersections with In-Space Mine Engineering, Luxembourg, Luxembourg, September 2016.

Müller, T.G.: Small bodies near and far, contributed talk, Asteroid Impact Mission (AIM) Science Meeting, ESAC Madrid, Spain, March 2016.

Müller, T.G.: Thermal Characterisation of TNOs/Centaurs with JWST, invited talk, JWST Solar System Workshop, London, UK, August 2016.

Müller, T.G.: Zwischen den Planeten: Von Asteroiden und Kometen, public talk, Kinder Uni Bad Neustadt, Bad Neustadt, Germany, January 2016.

Nandra, K.: Supermassive Black Hole Growth and Evolution, colloquium, Univ. Cambridge, Cambridge, UK, January 2016.

Nandra, K.: Athena and the Wide Field Imager, invited talk, Athena WFI Consortium Meeting, MPE, Garching, Germany, March 2016.

Nandra, K.: Athena: The Advanced Telescope for High Energy Astrophysics, invited talk, SPIE Conference, Edinburgh, UK, July 2016.

Nandra, K.: eROSITA: Synergies between Chandra and the next generation all sky survey, invited talk, Chandra Science for the next decade Conference, Cambridge, USA, August 2016.

Nelson, E.: Growth of Disks and Bulges at High z, invited talk, In Situ View of Galaxy Formation, Schloss Ringberg, Germany, November 2016.

Perez-Villegas, A.: The Stellar Halo in the Inner Milky Way: Predicted Shape and Kinematics, contributed talk, Excellence Cluster Science Day, Garching, Germany, November 2016.

Pfuhl, O.: Dual field interferometry with GRAVITY: the largest optical telescope in the world opens its second eye, contributed talk, SPIE Astronomical Telescopes + Instrumentation, Edinburgh, Great Britain, June 2016.

Pfuhl, O.: High precision astrometry with the GRAVITY interferometer, colloquium, European Week of Astronomy and Space Science, Athens, Greece, July 2016.

Pineda, J.E.: From Cores to Disks: Just follow the gas, invited talk, Workshop on Astrochemistry in Star and Planet Formation, RIKEN, Tokyo, Japan, February 2016.

Pineda, J.E.: The Green Bank Ammonia Survey (GAS): First results of NH<sub>3</sub> mapping the Gould Belt, contributed talk, "The hydride toolbox", Paris, France, December 2016.

Pineda, J.E.: The Green Bank Ammonia Survey (GAS): Initial Results, contributed talk, 227th Meeting of the American Astronomical Society, Kissimmee, Florida, USA, January 2016.

Pineda, J.E.: The Green Bank Ammonia Survey (GAS):

Initial Results, contributed talk, 227th Meeting of the American Astronomical Society, Kissimmee, Florida, USA, January 2016.

Plewa, P.: What's new with G2?, invited talk, Stellar aggregates over mass and spatial scales, Bad Honnef, Germany, December 2016.

Portail, M.: Dynamical Modelling of the Inner Galactic Barred Disk, contributed talk, Discs in Galaxies, ESO, Munich, Germany, July 2016.

Portail, M.: Dynamics and Mass of the Galactic Bulge, Bar and Inner Disk, contributed talk, The Milky Way and its environment, IAP, Paris, France, September 2016.

Punanova, A.: Deuterium fraction and kinematics in low mass star forming regions: environmental effects, contributed talk, Symposium 9 "The Dynamics of Star and Planet Formation" of the EWASS-2016 (European Week of Astronomy and Space Science), Athens, Greece, July 2016.

Punanova, A.: Deuterium fractionation and kinematics in the Taurus molecular cloud, contributed talk, Fractionation of isotopes: from Solar System to galaxies, Florence, Italy, October 2016.

Rau, A.: Athena Wide Field Imager Key Science Drivers, contributed talk, SPIE for Astronomical Telescopes and Instrumentation 2016, Edinburgh, Scotland, July 2016.

Rau, A.: Athena/WFI - Scientific Motivation, invited talk, MPG HLL Review Meeting, Ringberg, Germany, December 2016.

Rau, A.: High-z GRBs in the optical/IR/mm: host galaxy morphology, star formation rate, metallicity, fast optical follow-up, invited talk, ESO-Athena Synergy Workshop, Garching, Germany, Sep 2016.

Rau, A.: Prospects for detecting the shortest period AM CVn systems in the eROSITA all-sky survey, contributed talk, eROSITA\_DE Consortium Meeting, Tübingen, Germany, September 2016.

Rau, A.: SRG/eROSITA - Gaia synergies for transients and variables, contributed talk, 7th Opticon Gaia Science Alerts Workshop, Utrecht, The Netherlands, December 2016.

Rau, A.: Science Requirements and Science Team Activities, contributed talk, Athena/WFI Proto-Consortium Meeting, Garching, Germany, March 2016.

Rau, A.: WFI Update, invited talk, X-IFU Consortium Meeting, Utrecht, The Netherlands, May 2016.

Salvato, M.: Photoz for AGN: successes and problems, invited talk, A Cosmic Census of the Galaxies in the Distant Universe, Leiden, The Netherlands, June 2016.

Salvato, M.: Determination of optical/IR counterparts of distant X-ray sources and their redshift, invited talk, ESO-Athena Synergy Workshop, Garching, Germany, September 2016.

Salvato, M.: Errors on blind photoz computed on AGN, contributed talk, Euclid OU-PHZ biannual meeting, Napoli, Italy, May 2016.

Salvato, M.: My work, public talk, Girls' Day, Garching,



Germany, April 2016.

Salvato, M.: ROSAT-2RXS counterparts using Nway. An accurate (Bayesian) algorithm to pair sources simultaneously between N catalogs, invited talk, Challenges in Statistical Inference, Garching, Germany, November 2016.

Salvato, M.: SPIDERS value-added Catalog for AGN, contributed talk, eBOSS collaboration meeting, Lausanne, Switzerland, February 2016.

Salvato, M.: The eROSITA Surveys and the Follow-up, colloquium, JPL Colloquium, Pasadena, CA, USA, September 2016.

Salvato, M.: eROSITA AGN and synergy with JPAS, contributed talk, 13th J-PAS Meeting, Teruel, Spain, September 2016.

Salvato, M.: eROSITA AGN properties: tools/requirements, contributed talk, eROSITA consortium meeting, Tübingen, Germany, September 2016.

Salvato, M.: eROSITA AGN, contributed talk, Follow-up of wide-area X-ray surveys: Science, Facilities, Programs, Ringberg, Germany, April 2016.

Salvato, M.: eROSITA and Euclid synergy, invited talk, Euclid Consortium Meeting 2016, Lisbon, Portugal, June 2016.

Salvato, M.: eROSITA, invited talk, X-ray View of Black Hole Activity in the Local Universe, Zurich, Switzerland, February 2016.

Salvato, M.: eROSITA and SPHEREx synergy, invited talk, Astrophysics with the SPHEREx All-Sky Spectral Survey, Pasadena, USA, February 2016.

Sanders, J.S.: A Chandra hydrostatic analysis of SPT-selected galaxy clusters, contributed talk, German eROSITA Consortium Meeting, Tübingen, Germany, September 2016.

Sanders, J.S.: A detailed X-ray view of the intracluster medium, colloquium, Munich Joint Astronomy Colloquium, Garching, Germany, March 2016.

Sanders, J.S.: Episodic feedback in the core of the Centaurus cluster, contributed talk, Galaxy clusters: physics laboratories and cosmological probes, Kavli Institute for Cosmology, Cambridge, UK, December 2016.

Sanders, J.S.: Veusz, a scientific plotting package, contributed talk, 9th European Conference on Python in Science, Erlangen, Germany, August 2016.

Schönfelder, V.: The History of COMPTEL, invited talk, Celebration of the 25th Anniversary of the Launch of the Compton Gamma Ray Observatory, GSFC, Greenbelt, USA, June 2016.

Schruba, A.: Molecular Cloud Structure and the Star Formation Process at Low Metallicity, colloquium, Königstuhl Colloquium, Max Planck Institute for Astronomy, Heidelberg, Germany, March 2016.

Schruba, A.: Observing the Gaseous Material of the Universe, invited talk, ISM-SPP Conference, Freising, Germany, March 2016.

Schruba, A.: Observing the Interstellar Medium and Star Formation Process in Nearby Galaxies at High Physical

Detail, colloquium, Onsala Space Observatory, Onsala, Sweden, August 2016.

Schruba, A.: The Gas-Star Cycle resolved from Galactic to Cloud Scale in Nearby Galaxies, contributed talk, How Galaxies form Stars, Stockholm, Sweden, August 2016.

Schruba, A.: The High-Resolution View on the Gas-Star Cycle in Nearby Galaxies, contributed talk, Via Lactea: The Milky Way as a Star Formation Engine, Rome, Italy, September 2016.

Schruba, A.: The Interstellar Medium Structure and Star Formation Process in Nearby Disk Galaxies, contributed talk, Discs in Galaxies, ESO, Garching, Germany, July 2016.

Shimizu, T.: The Star-Forming Properties of an Ultra-Hard X-ray Selected Sample of AGN, contributed talk, 227th Meeting of the American Astronomical Society, Kissimmee, FL, USA, January 2016.

Simm, T.: PSD analysis of optical QSO light curves, contributed talk, Active Galactic Nuclei: what's in a name?, Garching, Germany, June 2016.

Simm, T.: PSD analysis of optical QSO light curves, contributed talk, Fero8 Meeting, Vinice Hnanice, Czech Republic, September 2016.

Sipilä, O.: Models of deuterium and spin-state chemistry in low-mass star-forming cores, colloquium, Center for Star and Planet Formation, Copenhagen, Denmark, February 2016.

Soeldner-Rembold, I.: Kinematics of planetary nebulae in NGC 4278, contributed talk, IAU Symposium S323 on Planetary Nebulae: Multi-wavelength Probes of Stellar and Galactic Evolution, Beijing, China, October 2016.

Strong, A.: Cosmic rays: propagation in theory and practice, invited talk, Erice International School on Cosmic-Ray Astrophysics, Erice, Italy, August 2016.

Strong, A.: GALPROP Retrospective and Outlook, colloquium, Ruhr-Universität Bochum, Bochum, Germany, February 2016.

Strong, A.: Gamma-ray data analysis with D3PO, contributed talk, Gamma2016, Heidelberg, Germany, July 2016.

Strong, A.: Reflections on Cosmic Rays Beyond the Standard Model, invited talk, Cosmic Rays Beyond the Standard Model, San Vito di Cadore, Italy, September 2016.

Strong, A.: Reflections on Cosmic-Ray Folklore, invited talk, Sources of Galactic Cosmic rays, Paris, France, December 2016.

Strong, A.: The high-energy ISM and magnetic fields in the context of cosmic rays, gamma rays and synchrotron, invited talk, DFG Research Unit FOR-1254: Magnetic Fields. Plenary Meeting, Berlin, Germany, September 2016.

Sturm, E.: Molecular outflows and feedback in the local universe, invited talk, In Situ View of Galaxy Formation, Ringberg Castle, Germany, October/November 2016.

Szűcs, L.: On the caveats of tracing molecular gas with CO emission, invited talk, STARPLAN, Copenhagen, Denmark, May 2016.

Szűcs, L.: On the caveats of tracing molecular gas with

CO emission, invited talk, School of Physics and Astronomy, Cardiff University, Cardiff, UK, October 2016.

Tacconi, L.J.: Galaxy Formation and Evolution: Gas and Star Formation Properties, invited talk, Half a Decade of ALMA: Cosmic Dawns Transformed, Indian Wells, California, USA, September 2016.

Tacconi, L.J.: Star Formation in Massive Galaxies: the Observational Perspective, invited talk, EWASS Symposium, How Galaxies Live and Die, Athens, Greece, July 2016.

Tacconi, L.J.: The Evolution of Molecular Gas in Star Forming Galaxies from  $z=2.5$  to 0, invited talk, From Stellar Evolution to Galaxy Formation: A Celebration in Honor of Alvio Renzini, Kogen Lodge, Nagano, Japan, March 2016.

Tacconi, L.J.: Unified Gas Scaling Relations in Star Forming Galaxies, invited talk, In Situ View of Galaxy Formation, Ringberg Castle, Germany, October 2016.

Tadaki, K.: ALMA Reveals Rapid Formation of a Dense Core for Massive Galaxies at  $z\sim 2$ , contributed talk, 2016 STScI Spring Symposium: What Shapes Galaxies?, Baltimore, US, April 2016.

Tadaki, K.: ALMA Reveals Rapid Formation of a Dense Core for Massive Galaxies at  $z\sim 2$ , contributed talk, The Changing Face of Galaxies, Hobart, Australia, September 2016.

Tadaki, K.: ALMA reveals rapid formation of a dense core for massive discs at  $z\sim 2$ , contributed talk, Discs in galaxies, Garching, Germany, July 2016.

Tadaki, K.: Bulge-forming galaxies with an extended rotating disk at  $z\sim 2$ , contributed talk, In Situ View of Galaxy Formation, Ringberg, Germany, November 2016.

Tadaki, K.: Rapid formation of a central bulge in massive galaxies at  $z\sim 2$ : from MAHALO-Subaru to GRACIAS-ALMA, contributed talk, Panoramas of the Evolving Cosmos, Hiroshima, Japan, December 2016.

Thomas, J.: Kinematics & dynamical masses of local massive ETGs, invited talk, Deconstructing Galaxies at Cosmic Noon: The Present and Future of Deep Spectroscopic Surveys at High Redshift, Leiden, The Netherlands, August 2016.

Trümper, J.: Der Stern von Bethlehem, public talk, Montessori-Schule Hausham, Hausham, Germany, December 2016.

Trümper, J.: Discoveries in the X-Ray Sky - A personal recollection, invited talk, European Astronomical Society, Athens, Greece, July 2016.

Trümper, J.: Röntgenstrahlung von Neutronensternen, colloquium, Ernst-Abbe Kolloquium, Jena, Germany, November 2016.

Trümper, J.: Warum scheint eigentlich die Sonne?, public talk, Montessori - Schule Hausham, Hausham, Germany, December 2016.

Übler, H.: Dynamical Properties of Star-forming Galaxies at  $0.7 < z < 2.7$ , contributed talk, In Situ View of Galaxy Formation, Schloss Ringberg, Germany, November 2016.

Übler, H.: Dynamical Properties of Star-forming Galaxies at  $z < 2$  with KMOS<sup>3D</sup>, invited talk, Physical Characteristics

of Normal Galaxies at  $z > 2$ , Leiden, The Netherlands, October 2016.

van Dishoeck, E.F.: Astrochemistry: the past and next 10 years, invited talk, Early phases of star formation (EPOS) 2016, Ringberg, Germany, June 2016.

van Dishoeck, E.F.: Building stars, planets and the ingredients for life between the stars, colloquium, Cormack lecture, Edinburgh, UK, November 2016.

van Dishoeck, E.F.: Building stars, planets and the ingredients for life between the stars, public talk, John Bahcall public lecture, Washington DC, USA, March 2016.

van Dishoeck, E.F.: Building stars, planets and the ingredients for life between the stars, public talk, Public Lecture, Amsterdam, The Netherlands, November 2016.

van Dishoeck, E.F.: Chemical fingerprints of star formation, invited talk, European conference on lab astrophysics: gas on the rocks, Madrid, Spain, November 2016.

van Dishoeck, E.F.: Disk physical properties and evolution: major questions for ALMA, invited talk, Protostars and disks with ALMA in Cycle 4, Bordeaux, France, January 2016.

van Dishoeck, E.F.: From clouds to stars and comets, invited talk, Rosetta-ROSINA workshop, Kandersteg, Switzerland, June 2016.

van Dishoeck, E.F.: Hydrides in star-forming regions, invited talk, The Hydride Toolbox, Paris, France, December 2016.

van Dishoeck, E.F.: Protoplanetary disks: what sets the composition of planet-forming material?, invited talk, Kavli exofrontiers symposium, Cambridge, UK, September 2016.

van Dishoeck, E.F.: Roles of women astronomers in the IAU, invited talk, The 10th East Asian meeting on Astronomy, Seoul, Korea, September 2016.

van Dishoeck, E.F.: Setting the scene for planet formation: what ALMA tells us about gas and dust in disks, invited talk, Lorenz Center workshop on New directions in planet formation, Leiden, The Netherlands, July 2016.

van Dishoeck, E.F.: The ALMA PILS survey: sweet ingredients for planet formation, colloquium, Univ. Santiago, Santiago, Chile, December 2016.

van Dishoeck, E.F.: The JWST MIRI instrument and its potential for ice observations, invited talk, Ice Age: the era of the James Webb Space Telescope, Leiden, The Netherlands, October 2016.

van Dishoeck, E.F.: The chemistry trail from clouds to disks and comets, invited talk, From Giotto to Rosetta: 50th ESLAB symposium, Leiden, The Netherlands, March 2016.

van Dishoeck, E.F.: Transitional disks: structure and origin, colloquium, Univ. Florence, Florence, Italy, June 2016.

van Dishoeck, E.F.: Transitional disks: structure and origin, colloquium, University of Arizona, Tucson, USA, April 2016.

van Dishoeck, E.F.: Transitional disks: structure, origin

and evolution, invited talk, The 10th East Asian meeting on Astronomy, Seoul, Korea, September 2016.

van Dishoeck, E.F.: Water across the star formation stages, contributed talk, Water in the universe: from clouds to oceans, Noordwijk, The Netherlands, April 2016.

van Dishoeck, E.F.: Water from clouds to planets, colloquium, John Bahcall lecture, NASA-Goddard, Washington DC, USA, March 2016.

van Dishoeck, E.F.: Water from clouds to planets, invited talk, Nijmegen, The Netherlands, April 2016.

van Dishoeck, E.F.: Zooming into planet-forming zones of disks: sweet results from ALMA (John Bahcall lecture), colloquium, StScl, Baltimore, USA, March 2016.

van Dishoeck, E.F.: Zooming into planet-forming zones of disks: sweet results from ALMA, colloquium, UNAM, Mexico City, Mexico, May 2016.

Vasyunin, A.: Which Chemical Models for What?, invited talk, Astrochemistry with ALMA Cycle 4, Floirac, France, January 2016.

Vasyunin, A.: Formation of complex organic molecules in prestellar cores: an extended model, invited talk, Symposium 8 "Interstellar dust and gas coupling: linking observations, models and laboratory astrophysics" at EWASS-2016, Athens, Greece, July 2016.

von Kienlin, A.: Fermi GBM Observations of LIGO GW150914, invited talk, The first observation of a binary black hole merger: Status and future prospects, Hannover, Germany, May 2016.

von Kienlin, A.: Recent results with Fermi GBM, invited talk, SciNeGHE 2016, High-energy gamma-ray experiments at the dawn of gravitational wave astronomy, Pisa, Italy, October 2016.

Waisberg, I.: GRAVITY@VLTI: Testing General Relativity at the Galactic Center with Optical Interferometry, invited talk, GW161212: The Universe through gravitational waves, Stony Brook, USA, December 2016 .

Wilman, D.J.: Tracing the Inside-out Growth and Outside-In Quenching of Disks over  $\sim 85\%$  of cosmic time, contributed talk, Mapping the Pathways of Galaxy Transformation across time and space, Catalina Island, California, USA, July 2016.

Wilman, D.J.: Tracing the Inside-out Growth and Outside-In Quenching of Disks over  $\sim 85\%$  of cosmic time, contributed talk, The Interplay between local and global processes in Galaxies, Cozumel, Mexico, April, 2016.

Wisnioski, E.: Tracing High-z Galaxy Kinematics from Turbulent Disks to Quenched Spheroids, invited talk, The Changing Face of Galaxies, Hobart, Australia, September 2016.

Wisnioski, E.: The KMOS3D project, invited talk, Formation & Evolution of Galaxy Outskirts, Toledo, Spain, March 2016.

Wisnioski, E.: Tracing High-z Galaxy Kinematics from Turbulent Disks to Quenched Spheroids, invited talk, In Situ View of Galaxy Formation, Ringberg Castle, Germany, November 2016.

Yu, H.-F.: Time-Resolved Spectral Shapes of Gamma-Ray Bursts, invited talk, The Eighth Huntsville Gamma-Ray Burst Symposium, Huntsville, AL, USA, October 2016.

## PhD Theses

Bauböck, M.: The Effects of Spin on Neutron-Star Observations. University of Arizona, Tucson, USA 2016.

Belli, S.B.: Deep near-infrared spectroscopy of high-redshift galaxies: the physical growth of passive systems. California Institute of Technology, Pasadena, USA 2016.

Chan, C.C.: Constraining the formation and evolution of cluster galaxies at  $z \sim 1.5$  using sizes and colour gradients. Ludwig-Maximilians-Universität München 2016.

Fossati, M.: Environmentally driven suppression of star formation in galaxies over the last 10 billion years. Ludwig-Maximilians-Universität München 2016.

Grieb, J.N.: Anisotropic galaxy clustering measurements in Fourier space and cosmological implications from the BOSS DR12 sample. Ludwig-Maximilians-Universität München 2016.

Lang, P.: The Evolution of high-redshift galaxies from high-resolution near-infrared observations. Ludwig-Maximilians-Universität München 2016.

Mantovani, G.: Reflection signatures in bright Seyfert 1 galaxies observed with Suzaku and NuSTAR. Ludwig-Maximilians-Universität München 2016.

Menz, B.J.: Development of large area X-ray beam collimator. Technische Universität München 2016.

Menzel, M.-L.: Narrow line kinematics in a spectroscopic survey of X-ray selected AGN in the XMM-XXL North. Ludwig-Maximilians-Universität München 2016.

Obermeier, C.: Searching for hot Jupiter transits around cool stars. Ludwig-Maximilians-Universität München 2016.

Opitsch, M.O.: The bar of the Andromeda galaxy revealed by integral field spectroscopy. Ludwig-Maximilians-Universität München 2016.

Portail, M.P.: Structure and Dynamics of the Galactic Bulge and Bar. Ludwig-Maximilians-Universität München 2016.

Siegert, T.: Positron Annihilation Spectroscopy throughout the Milky Way. Technische Universität München 2016.

Salazar Alborno, S.: A tomographic approach to the statistical analysis of the large-scale structure of the universe. Ludwig-Maximilians-Universität München 2016.

Yu, H.-F.: Constraints on the Prompt Emission Mechanism of Gamma-Ray Bursts using Time-Resolved Spectroscopy. Technische Universität München 2016.

## Master Theses

Augenstein, A.: Classification of Background Lines in SPI/INTEGRAL. Technische Universität München 2016.

Floers, A.: Nebular Spectra of Type Ia Supernovae. Technische Universität München 2016.

Gräff, D.: Upgrade and Characterization of the SPIFFI/SINFONI Optics. Technische Universität München 2016.

Pleintinger, M.: Spectroscopy of an Emission Nebula. Technische Universität München 2016.

Schmalzl, S.: Development of Advanced Techniques for the Analysis of Imaging Spectrometer Data Obtained at the Very Large Telescope in Chile. Technische Universität München 2016.

Sicheneder, E.: An HII Region Model of Strong Interstellar Scattering towards the Galactic Center. Technische Universität München 2016.

Vogl, C.: Towards distance determinations of Type IIp Supernovae. Technische Universität München 2016.

## Bachelor Theses

Boeck, F.: Broadband study of Cassiopeia A. Technische Universität München 2016.

Christodoulou, A.: Supernova SN2014J and Positrons. Technische Universität München 2016.

Philip, J.: Suche nach extrasolaren Planeten per Transitmethode und Periodenmessung von Bedeckungsveränderlichen Doppelsternen in M67. Ludwig-Maximilians-Universität München 2016.

# Collaborations / Transfer of Know-How

## Scientific Collaborations by Countries



### Australia

Australian National University, Canberra: Galaxienentstehung.

CSIRO Astronomy and Space Science, Epping: CAS-Observations; CAS-Theory.

Monash University, Melbourne: Nukleare Astrophysik.

Swinburne University of Technology, Victoria: Millisecond Pulsars.

University of Western Sydney: Magellanic Clouds.

### Austria

Universität und TU Wien: Herschel-PACS; MICADO; ATHENA.

Universität Innsbruck: MICADO.

Universität Linz: MICADO.

RICAM Linz: MICADO.

### Belgium

CSL Liège, Katholieke Universiteit Leuven: Herschel-PACS; INTEGRAL-Spectrometer SPI.

### Brasil

Universidade de Sao Paulo: Galaxienentstehung.

Observatorio Nacional, Rio de Janeiro: DES.

Centro Brasileiro de Pesquisas, Rio de Janeiro: DES.

Universidade Federal do Rio, Rio de Janeiro: DES.

### Canada

Dunlap Observatory, Richmond Hill: First Hydrostatic Cores (FHSCs).

NRC - Herzberg, Ottawa: CAS Observations.

University of Alberta, Edmonton (Alberta): CAS-Observations.

University of Toronto: CAS-Observations.

University of Victoria, Victoria: CAS-Observations.

University of Waterloo, Waterloo: Herschel HIFI.

University of Western Ontario, London (Ontario): CAS-Observations; CAS-Theory.

Queen's University, Kingston: CAS-Observations.

### Chile

ESO, Joint ALMA Observatory, Santigao: CAS-Observations.

Universidad de Concepcion: Röntgen-Doppelsternsysteme.

Universidad Catolica Santiago: Röntgen-Doppelsternsysteme; Galaktisches Zentrum.

**China**

Donghua University, Shanghai: CAS-Theory.  
 Institute for High-Energy Physics (IHEP), Peking: Gammaquellen mit COMPTEL und INTEGRAL.  
 Nanjing University, Nanjing: CAS-Observations.  
 National Observatory of China, Beijing: CAS-Observations.  
 University of Hongkong: Strahlungsmechanismen von Pulsaren im Röntgen- und Gammabereich.

**Croatia**

Ministry of Science and Technology, Zagreb: CAST.

**Czech Republic**

Charles University, Prague: CAS-Theory.

**Denmark**

Dänemarks Technische Universität: ATHENA.

**Finland**

University of Helsinki, Helsinki: CAS-Theory; CAS-Observations.

**France**

Aix-Marseille University, Marseille: CAS-Observations; CAS-Theory.  
 CEA, Saclay: INTEGRAL-Spektrometer SPI; Herschel-PACS; CAST; EUCLID; SVOM; ATHENA.  
 Centre d'Etude Spatiale des Rayonnements (UPS), Toulouse: INTEGRAL-Spektrometer SPI; CAS-Observations.  
 IAP Paris: Nukleare Astrophysik.  
 IPAG Grenoble: GRAVITY; MICADO; Astrochemistry; CAS-Observations; CAS-Theory.  
 IRAM, Grenoble: CAS-Observations.  
 Laboratoire d'Astrophysique de Marseille (LAM): EUCLID; Gamma-Ray Bursts.  
 Laboratoire Univers et Particules de Montpellier, Montpellier: Cosmic-ray propagation in molecular clouds.  
 OAMP Marseille: Herschel-PACS.  
 Observatoire de Paris (GEPI): MICADO; Gravity.  
 Observatoire de Paris (LESIA): MICADO; GRAVITY; CAS-Theory.  
 Observatoire de Paris-Meudon: GRAVITY, Galaktisches Zentrum.  
 University of Bordeaux, Bordeaux: CAS-Theory.  
 Université de Cergy-Pontoise, Cergy Pontoise Cedex: CAS-Observations.  
 Université Paris Diderot, Paris: CAS-Observations.  
 Université de Rennes, Rennes: CAS-Observations.  
 Université de Toulouse, Toulouse: CAS-Observations.

**Germany**

Astrophysikalisches Institut Potsdam: eROSITA; XMM-

Newton; OPTIMA; ARGOS; HETDEX.

European Southern Observatory (ESO), Garching: GRAVITY; Galaxienentstehung; Nukleare Astrophysik; MICADO; ERIS; Black Hole Cam; Infrared Dark Clouds; CAS-Observations.

Fraunhofer Institut für Integrierte Schaltungen, Erlangen: Mikroelektronikentwicklungen; ATHENA.

Heinrich-Heine-Universität, Düsseldorf: Soft Matter Physics.

Institut für Astronomie und Astrophysik Tübingen (IAAT): XMM-Newton; eROSITA; ATHENA.

Institut für Astrophysik Göttingen: MICADO.

Institut für Festkörperphysik und Werkstoff-Forschung, Dresden: Entwicklung weichmagnetischer Werkstoffe.

Institut für Materialphysik im Weltraum, Köln: Glasübergänge.

Landessternwarte Heidelberg-Königstuhl: Nahinfrarotspektrograph LUCI für LBT; Galaxienentstehung; ARGOS.

Laser Zentrum Hannover: Development of advanced Filters for MICADO; Dichroics for ARGOS.

Ludwig-Maximilians-Universität (Universitäts-Sternwarte), München: MICADO; HETDEX; eROSITA.

Maier-Leibnitz Laboratorium, Garching: eROSITA.

Max-Planck-Institut für Astronomie, Heidelberg: GRAVITY; LUCI; Herschel-PACS; PanSTARRS; SDSS; ARGOS; MICADO; EUCLID; CAS-Observations.

Max-Planck-Institut für Astrophysik, Garching: SDSS; OPTIMA; eROSITA.

Max-Planck-Institut für Gravitationsphysik, Potsdam: Black Hole Cam.

Max-Planck-Institut für Physik, Werner Heisenberg Institut, München: MPI Halbleiterlabor; CAST; eROSITA; Athena.

Max-Planck-Institut für Radioastronomie, Bonn: ARGOS; Black Hole Cam; CAS-Observations.

Max-Planck-Institut für Struktur und Dynamik der Materie, Hamburg: CAS-Laboratory.

Physikalisch-Technische Bundesanstalt Berlin: eROSITA.

Technische Universität Berlin: Interstellares Medium.

Technische Universität Darmstadt: CAST.

Technische Universität München: Nukleare Astrophysik; CAS-Projekte.

Thüringer Landessternwarte Tautenburg: GROND; Gamma-Ray Bursts.

Universität Bochum: LUCI.

Universität Bonn: Test von Pixeldetektoren für ATHENA; eROSITA; EUCLID.

Universität der Bundeswehr, München: CAS-Projekte.

Universität Düsseldorf: ERC Advanced Grant; CAS-Theory.

Universität Erlangen (ECAP): eROSITA; ATHENA.

Universität Hamburg: eROSITA; OPTIMA (Flarestars).

Universität Heidelberg: ATHENA; XFEL; CAS-Observa-

tions; CAS-Theory.

Universität Jena: Isolierte Neutronensterne; Nukleare Astrophysik.

Universität Köln: Galaktisches Zentrum; GRAVITY; CAS-Observations; CAS-Theory; CAS-Laboratory.

Universität Mannheim: ATHENA; XFEL.

Universität Stuttgart: CAS-Projects.

Universität Würzburg: AGADE.

### Greece

University of Crete and Foundation for Research and Technology Hellas (FORTH), Heraklion: Skinakas Sternwarte; Röntgendoppelsternsystemen; OPTIMA Photometer; Röntgen-AGN, Novae.

National Observatory of Athens, Athens: Athena.

### Hungary

Konkoly Observatory, Budapest: Herschel-PACS; CAS-Observations; CAS-Theory.

### Irak

University of AL-Muthanna, AL-Muthanna: CAS-Observations.

### Ireland

National University of Ireland, Galway: High Time Resolution Astronomy; CAS-Observations.

University College Dublin: Fermi/GBM.

### Israel

School of Physics and Astronomy, Wise Observatory, Tel Aviv: Aktive Galaxien; Interstellares Medium; Galaxienentwicklung.

Weizmann Institut, Rehovot: Galaktisches Zentrum.

### Italy

Brera Astronomical Observatory: Himmelsdurchmusterung Galaxienhaufen.

IFCAI-CNR Palermo: XMM-Newton Beobachtungen von Neutronensternen und Pulsaren.

INAF (Instituto Nazionale di Astrofisica): ATHENA, EUCLID.

INAF Arcetri, Florence: ARGOS; LBT; ERIS; CR in Molecular Clouds; CAS-Observations; CAS-Laboratory; CAS-Theory.

INAF Padua: Herschel-PACS; LBT; MICADO; ERIS.

INAF Roma: LBT; Nukleare Astrophysik.

INAF Teramo: ERIS.

INAF Trieste: Gamma-Ray Bursts; Fermi/LAT.

INFR Frascati: SIDDHARTA.

Istituto di Fisica dello Spazio Interplanetario (CNR), Frascati: Herschel-PACS.

OAA/LENS Firenze: Herschel-PACS.

Scuola Normale Superiore, Pisa: CAS-Observations.

University Bologna: EUCLID; CAS-Laboratory; CAS-Observations.

Università di Torino, Torino: CAS-Observations.

Università di Firenze, Firenze: CAS-Observations.

Università di Perugia, Perugia: CAS-Observations.

### Japan

National Astronomical Observatory of Japan, Mitaka/Tokyo: CAS-Theory; CAS-Observations; Galaxy Formation.

Institute of Space and Astronautical Science, Kanagawa; CAS-Observations; CAS-Laboratory.

Institute of Physical and Chemical Research (RIKEN), Hiroshima: CAS-Observations.

Tokio Institute of Technology (TITECH), Ookayama: ASCA/XMM-Newton Beobachtungen von AGN.

University of Osaka: Astro-H.

University of Tokyo, Tokyo: CAS-Observations.

### Korea

Seoul National University, Seoul, Korea: CAS-Observations.

### Latvia

Ventspils University College, Ventspils: CAS-Theory.

### Mexico

Universidad Nacional Autónoma de México, Jiquilpan: CAS-Theory.

### Poland

University of Poznań, Poznań; CAS-Observations; CAS-Theory.

Nicolaus Copernicus (ZAMK), Torun: Pulsars Astronomical Centers; ATHENA.

University Zielona Gora: OPTIMA.

### Portugal

SIM Lissabon und Porto: GRAVITY.

Observatorio Astronomico de Lisboa, Lisbon: Athena.

### Russia

Institute of Astronomy, Moscow: CAS-Theory.

Lebedev Institute of Physics, Moscow: CAS-Theory.

Staatliche Technische Universität Bauman, Moscow: Stark gekoppelte Systeme; Time-domain spectroscopy; CAS-Theory; CAS-Laboratory.

Space Research Institute (IKI) of the Russian Academy of Science, Moscow: eROSITA/Spektrum Röntgen-Gamma.

Skobeltsyn Institute of Nuclear Physics, Moscow: Nukleare Astrophysik; Gamma-Ray Bursts; AGADE.

Ural Federal University, Yekaterinburg: CAS-Observations.

**Spain**

Centro de Investigaciones Energeticas, Medioambientales y Tecnologicas, Madrid: DES.

Centro de Astrobiología (CSIC/INTA), Madrid: CAS-Laboratory.

Ernst & Young Spain, Barcelona: CAS-Projects.

ESAC, Madrid: XMM-Newton Science Operations Center; INTEGRAL Science Operations Center; Herschel Science Operations Center; CAS-Observations.

Instituto de Astrofísica de Andalucía, Granada: CAS-Observations.

Instituto de Astrofísica de Canarias (IAC), Laguna: Herschel-PACS.

Instituto de Ciencias del Espacio, Bellaterra: DES; CAS-Observations.

Institut de Física d'Altes Energies, Barcelona: DES.

Universitat Valencia, Department de Astronomia, Valencia: INTEGRAL-Spektrometer SPI.

Universidad de Zaragoza: CAST.

Observatorio Astronomico de Mallorca: Novae; Kometen.

Observatorio Astronómico Nacional, Madrid: CAS-Observations.

**Sweden**

University Lund/Observatory: OPTIMA.

**Switzerland**

CERN, Geneva: CAST.

ETH Zürich: ERIS.

Observatoire de Genève Sauverny, Geneva: ISDC/INTEGRAL; Nukleare Astrophysik; EUCLID.

Universität Basel: Nukleare Astrophysik.

University of Geneva: Athena.

University of Zurich: Infrared Dark Clouds.

**Taiwan**

Institute of Astronomy and Astrophysics (ASIAA), Taipei: CAS-Theory; CAS-Observations.

National Central University, Chungli; PanSTARRS.

**The Netherlands**

ESTEC, Noordwijk: XMM-Newton-TS-Spiegelkalibration; CCD Entwicklung; Radiation Performance Instrument; INTEGRAL; EUCLID.

JIVE Dwingeloo: Black Hole Cam.

NOVA (Leiden, Groningen, Amsterdam): MICADO; ERIS.

Leiden University, Leiden: CAS-Observations; CAS-Theory.

Radboud University, Nijmegen: Black Hole Cam.

SRON, Utrecht: Chandra-LETG.

University of Groningen, Kapteyn Institute: Rekonstruktion der Dichteverteilung im Universum; EUCLID; Dynamical-Chemical Models; CAS-Theory; CAS-Observations.

**Turkey**

Bogazici University, Istanbul: CAST.

**UK**

Queen's University, Belfast: PanSTARRS.

John Moores University, Liverpool: Himmelsdurchmusterung Galaxienhaufen; Infrared Dark Clouds; CAS-Observations.

Open University, Milton Keynes: Kataklysmische Variablen; Novae; ATHENA.

Queen Mary University of London, London: CAS-Observations.

Rutherford Appleton Laboratory, Council for the Central Laboratory of the Research Councils, Swindon: SIS-Junctions.

United Kingdom Astronomy Technology Centre (UKATC): EUCLID; ERIS.

University of Cambridge: DES.

University College London, London: High Energy Pulsars; EUCLID; DES; CAS-Observations.

University of Durham: PanSTARRS.

University of Edinburgh: DES; PanSTARRS.

University of Leeds, Leeds: CAS-Theory; CAS-Observations.

University of Leicester: XMM-Newton Datenanalyse; ATHENA; Swift.

University of Nottingham: DES.

University of Portsmouth: DES.

University of Sussex, Brighton: DES.

University of Southampton: Magellanic Clouds.

**USA**

Argonne National Laboratory: DES.

Astronomical Sciences National Science Foundation, Arlington: CAS-Observations.

Brookhaven National Laboratory: strahlenharte JFET-Elektronik; strahlenharte Detektoren.

California Inst. of Technology, Pasadena: X-ray Survey.

CfA, Cambridge: ATHENA/WFI; XMM-Newton/Chandra Kalibration.

Clemson University: Gamma-Ray Bursts; Nukleare Astrophysik.

Fermilab, Batavia: DES.

Harvard University: PanSTARRS.

Harvard-Smithsonian Center for Astrophysics, Cambridge: Molecular cloud cores chemistry and dynamics.

Institute for Astronomy, Hawaii, Honolulu: Galaxienentstehung; PanSTARRS; NIR Kamera für Wendelstein.

Jet Propulsion Laboratory, Pasadena: EUCLID; CAS-Observations.

Johns Hopkins University: PanSTARRS.

Marshall Space Flight Center, Huntsville: Fermi Gamma-Ray Burst Monitor; XMM-Newton und Chandra Beobach-



tungen von Neutronensternen, Pulsaren und Supernova-Überresten.

NASA/Ames Research Center, Mofett Field (CA): MHD Shocks; CAS-Observations.

NASA/Goddard Space Flight Center, Greenbelt (MD): INTEGRAL-Spektrometer SPI; Swift.

NASA Herschel Science Center (NHSC), Pasadena: Herschel/PACS.

National Radio Astronomy Observatory, Socorro: CAS-Observations.

NOAO, Tucson: DES.

Ohio State University, Columbus: DES; LBT.

Pacific Northwest National Laboratory (PNNL), Richland: CAST.

Pennsylvania State University: HETDEX; Swift; Athena.

Research Corporation, Tucson: LBT.

San Jose State University: MHD shocks.

SLAC, Stanford: CAMP; DES; Athena.

Smithsonian Astrophysical Observatory, Cambridge: Chandra-LETGS; PanSTARRS; Röntgendoppelsterne in M31; Athena.

Space Telescope Science Institute, Baltimore: Galaxienentstehung; PanSTARRS; Turbulence; CAS-Observations.

Stanford University: DES; Fermi/LAT; Fermi/GBM.

Texas A & M University, College Station: DES.

Texas State University, San Marcos: HETDEX.

University of Arizona, Tucson: Kosmische Strahlung; Planetenentstehung; LBT; ARGOS; CAS-Observations.

University of California, Berkeley: MPG/UCB-Kollaboration; FAST; INTEGRAL-Spektrometer SPI; Superbubbles.

University of California, Santa Cruz: DES.

University of Chicago: DES.

University of Chicago, Chicago: CAS-Observations.

University of Colorado, Boulder (Co): Superbubbles; CAS-Observations.

University of Florida, Gainesville: Infrared Dark Clouds; CAS-Theory; CAS-Observations.

University of Illinois at Urbana-Champaign: DES.

University of Massachusetts, Amherst: CAS-Observations.

University of Michigan: DES.

University of Pennsylvania: DES.

University of Pittsburgh: Galaxienentstehung.

University of Texas, Austin: Galaxienentstehung; HETDEX.

University of Toledo: Galaxienentstehung

University of Virginia, Charlottesville: CAS-Theory.

Yale University, New Haven: CAS-Observations.

## Multinational Collaborations - Projects

ARGOS - Laserleitstern für das LBT: Arcetri Observatory, Italy; AIP, LSW Heidelberg, MPIA, MPIfR, Germany; University of Arizona, USA.

ASPI - The International Wave Consortium: CNR-IFSI Frascati, Italy; LPCE/CNRS Orleans, France; Dept. of Automatic Control and Systems University of Sheffield, UK.

ATHENA - Advanced Telescope for High Energy Astrophysics: Dänemarks Technische Universität, Dänemark; Nikolaus Kopernikus Astronomical Center, Polen; Universität Wien, Österreich; IWF, Graz; INAF Italy, Italy; CEA Frankreich, Frankreich; University of Leicester, Open University, UK; Institut für Astronomie und Astrophysik Tübingen, Erlangen Centre for Astroparticle Physics (ECAP), Germany; ESA; NOA, Greece; Universität Geneva, Schweiz; Institute for Astrophysics, Portugal.

BOSS - Baryon Oscillation Spectroscopic Survey: SDSS-IV Collaboration.

CAST - CERN Solar Axion Telescope: CERN Geneva, Switzerland; TU Darmstadt, MPI für Physik (WHI) München, Germany; Universidad de Zaragoza, Spain; Bogazici University Istanbul, Turkey; Ministry of Science and Technology Zagreb, Croatia; CEA, Saclay, DAPNIA/-SED, France; Pacific Northwest National Laboratory, Richland, USA.

CDFS - The Chandra Deep Field South: ESO Garching, AIP, Germany; IAP Paris, France; Osservatorio Astronomico Trieste; Istituto Nazionale di Fisica Nucleare Trieste, Italy; Associated Universities Washington, Johns Hopkins University Baltimore, Space Telescope Science Institute Baltimore, USA; Center for Astrophysics Hefei, China.

Chandra: Marshall Space Flight Center Huntsville, Massachusetts Institute of Technology Cambridge, Smithsonian Astrophysical Observatory Cambridge, USA; Space Research Institute Utrecht, The Netherlands; Universität Hamburg, Germany.

COSMOS - Cosmological Evolution Survey: INAF-Osservatorio Astronomico di Bologna, INAF-Osservatorio Astronomico di Roma, INAF-Osservatorio Astrofisico di Arcetri, INAF/IASF-CNR, Sezione di Milano, IRA-INAf, Bologna, Dipartimento di Astronomia, Università Padova, Dipartimento di Fisica, Università degli Studi Roma Tre, Italy; Harvard-Smithsonian Centre for Astrophysics, Cambridge, Dept. of Physics, Carnegie Mellon University, Pittsburg, Institute for Astronomy, University of Hawaii, California Institute of Technology, Pasadena, Dept. of Astronomy, Yale University, USA; INTEGRAL Science Data Centre, Versoix, Switzerland; Laboratoire d'Astrophysique de Marseille, France.

DES - Dark Energy Survey: LMU München, Excellence Cluster Universe, Germany; The Fermi National Accelerator Laboratory (Fermilab), University of Chicago, NAO, University of Michigan, University of Pennsylvania, University of Illinois at Urbana-Champaign, Ohio State University, Texas A&M University, University of California Santa Cruz, Stanford University, SLAC National Accelerator

Laboratory, The Lawrence Berkeley National Laboratory, Argonne National Laboratory, USA; University College London, University of Cambridge, University of Edinburgh, University of Portsmouth, University of Sussex, University of Nottingham, UK; Observatorio Nacional, Centro Brasileiro de Pesquisas Fisicas, Universidade Federal do Rio, Brasilien; Instituto de Ciencias dei Espacio, Institut de Fisica d'Altes Energies, Centro de Investigaciones Energeticas Medioambientales y Tecnologicas, Spain.

ERIS - Enhanced Resolution Imager and Spectrograph for the VLT: ESO, Germany; ETH Zürich, Switzerland; INAF Arcetri (with OAA, OATe and OAPd), Italy; UKATC Edinburgh, Scotland; NOVA Leiden, The Netherlands.

eROSITA - extended Roentgen Survey with an Imaging Telescope Array: AIP Potsdam, Universität Tübingen, Universität Bonn, Universität Erlangen, Universität Hamburg, Remeis-Sternwarte Bamberg, MPA Garching, LMU (USM) München, Germany; IKI Moskau, Russia.

EUCLID - ESA Mission to map the Dark Energy: ESA; CEA Saclay, LAM, France; University Bologna, INAF, Italy; MSSL, Durham University, UKATC UK; STScI, USA; MPIA Heidelberg, Universität Bonn, Germany.

Fermi/GBM - Fermi Gamma-Ray Burst Monitor: Marshall Space Flight Center Huntsville, University of Huntsville, USA.

Fermi/LAT - Fermi Gamma-Ray Large Area Space Telescope: Stanford University Palo Alto, Naval Research Laboratory Washington DC, Sonoma State University Rohnert Park, Lockheed Martin Corporation Palo Alto, University of California Santa Cruz, University of Chicago, University of Maryland Greenbelt, NASA Ames Research Center Moffett Field, NASA Goddard Space Flight Center for High Energy Astrophysics Greenbelt, Boston University, University of Utah Salt Lake City, University of Washington Seattle, SLAC Particle Astrophysics Group Palo Alto, USA; ICTP and INFN Trieste, Istituto Nazionale di Fisica Nucleare Trieste, Italy; University of Tokyo, Japan; CEA Saclay, France.

FP7 Opticon JRA1 - Adaptive Optics: INAF Padova, INAF Arcetri, Italy; LAM Marseille, LAOG Grenoble; LESIA Paris, ONERA Paris, France; KIS Freiburg, MPIA Heidelberg, Germany; NOVA Leiden, The Netherlands; UKATC Edinburgh; University Durham, UK.

GRAVITY - Instrument for VLT Interferometry: MPIA Heidelberg, Universität Köln, ESO, Garching, Germany; SIM Lissabon und Porto, Portugal; IPAG, Grenoble, Observatoire de Paris / Meudon (LESIA), France.

Herschel/PACS - Photodetector Array Camera and Spectrometer: CSL Liège, Katholieke Universiteit Leuven, Belgium; MPIA Heidelberg, Universität Jena, Germany; OAA/LENS Firenze, IFSI Roma, OAP Padova, Italy; IAC La Laguna, Spain; Universität und TU Wien, Austria; IGRAP Marseilles, CEA Saclay, France; Konkoly Observatory, Hungary; NHSC Pasadena, USA.

HETDEX - Hobby-Eberly Telescope Dark Energy Experiment: University of Texas, Austin, Pennsylvania State University, Texas A&M University, USA; AIP Potsdam, LMU, USM, Germany.

INTAS - Cooperation of Western and Eastern European Scientists: France, Germany, Norway, Russia.

ISDC - INTEGRAL Science Data Centre: Observatoire de Geneva Saclay, Switzerland; Service d'Astrophysique Centre d'Etudes de Saclay, France; Rutherford Appleton Laboratory Oxon Dept. of Physics University Southampton, UK; Institut für Astronomie und Astrophysik Tübingen Germany; Danish Space Research Institute Lyngby, Denmark; University College Dublin, Ireland; Istituto di Fisica Milano, Istituto di Astrofisica Spaziale Frascati, Italy; N. Copernicus Astronomical Center Warsaw, Poland; Space Research Institute of the Russian Academy of Sciences Moscow, Russia; Laboratory for High Energy Astrophysics GSFC Greenbelt, USA.

INTEGRAL-Spectrometer SPI: Centre d'Etude Spatiale des Rayonnements (CESR) Toulouse, CEA Saclay Gif-sur-Yvette, France; University de Valencia Burjassot, Spain.

LBT - Large Binocular Telescope Project: MPIA Heidelberg, MPIfR Bonn, Landessternwarte Heidelberg Königstuhl, AIP, Germany; University of Arizona, Tucson, Ohio State University, Columbus, Research Corporation, USA; INAF, Italy.

Lockman Hole, optical/NIR identifications: Astrophysikalisches Institut Potsdam, ESO Garching, Germany; Istituto di Radioastronomia del CNR Bologna, Italien; Associated Universities Washington, California Institute of Technology Pasadena, Institute for Astronomy Honolulu, Princeton University Observatory, Pennsylvania State University Park, USA; Subaru Telescope NAO Hilo, Japan.

LUCI (Instrument for LBT): LSW Heidelberg, MPIA, Universität Bochum, Germany.

MICADO - Multi-Adaptive Optics Imaging Camera for Deep Observations: LMU (USM), MPIA Heidelberg, IFA Göttingen, Germany; INAF-OAPD Padova, Italy; A\* (partnership of University Vienna, University Innsbruck, University Linz and RICAM Linz), Austria; NOVA (federation of Dutch university astronomy departments of the universities in Amsterdam, Groningen, Leiden, Nijmegen), The Netherlands; CNRS/INSU (representing LESIA, GEPI and IPAG), Paris, France.

MXT - Microchannel X-Ray Telescope for Gamma-Ray Bursts: CEA, Saclay, France; University of Leicester, UK.

OPTIMA: AIP, MPI für Astrophysik, Universität Hamburg, Germany; University of Crete, Greece; University Zielona Gora, Poland; University Lund/Observatory, Schweden.

PanSTARRS - Panoramic Survey Telescope & Rapid Response System: MPIA Heidelberg, Germany, University of Hawaii, Harvard University, Johns Hopkins Univ. Baltimore, MD, USA; Universities of Durham, Edinburgh, Belfast, UK.

SDSS - Sloan Digital Sky Survey: MPA Garching, MPIA Heidelberg, Germany; Univ. of Washington, Seattle, Fermi National Accelerator Laboratory, Batavia, University of Michigan, Ann Arbor, Carnegie Mellon University, Pittsburgh, Penn State University, University Park, Princeton University Observatory, Princeton, The Institute of Advanced Study Princeton, Space Telescope Science Institute, Baltimore, Johns Hopkins Univ. Baltimore, USA.

Swift - Gamma-Ray Burst Mission: NASA/GSFC Greenbelt, Penn State University, USA; University of Leicester, Mullard Space Science Laboratory London, UK; Osservatorio Astronomico Brera, Italy.

XMM-Newton/SSC (Survey Science Center): AIP, Germany; SAP Saclay, CDS Strasbourg, CESR Toulouse, France; University of Leicester, Institute of Astronomy Cambridge, MSSL London, UK.

XMM-Newton/EPIC (European Photo Imaging Camera): SAP Saclay, IAS Orsay, CESR Toulouse, France; University of Leicester, University Birmingham, UK; CNR Mailand-Palermo-Bologna-Frascati, Osservatorio Astronomico Mailand, Italy; Institut für Astronomie und Astrophysik Tübingen, Germany.

## Industrial Collaborations

3d shape GmbH, Erlangen: Metrology for slumped glass mirror study.

4D Engineering, Gilching, Germany: Software development for GRAVITY.

ABN GmbH, Neuried: Ongoing servicing of the MPE test facility PANTER.

af inventions, Braunschweig: FPGA Programmierung for eROSITA.

Airbus Defense and Space, Munich: EUCLID design study, eROSITA.

AMOS, Liège, Belgium: High resolution grating for ERIS.

Array Electronics, Egmating: DAQ development OPTIMA.

BASF Coatings AG, Münster: Investigations on the scattering properties of micro particles.

Buchberger GmbH, Tuchenbach: Manufacturing of parts for PANTER manipulators.

Dico-Solutions, München: Elektronikentwicklung für eROSITA.

ESL GmbH, Berlin: Manufacturing of circuit boards.

Fraunhofer IOF, Jena: Coating for ERIS.

Freyer GmbH, Tübingen: PANTER, parts for LUCI, eROSITA.

Guido Lex Werkzeugbau GmbH, Miesbach: parts for LUCI.

Hans Englert GmbH, Berlin: Manufacturing of front panels and metering devices.

HPS München: Multi-Layer Insulation (MLI) for eROSITA.

IABG, Ottobrunn: Environmental testing eROSITA.

II-VI Deutschland, Weiterstadt: ZnS prototypes for ERIS grating.

Ingenieurbüro Buttler, Essen: Development of front-end

electronics for ATHENA and eROSITA.

Ingenieurbüro Josef Eder, Hilgertshausen: System Engineering for eROSITA, GRAVITY, ATHENA, ERIS.

Ingenieurbüro Weisz, München: Design and mechanical engineering for LUCI, ERIS and MICADO.

Invent GmbH, Braunschweig: CFRP-Telescopestructure for eROSITA.

IRIDIAN Spectral Technologies, Ottawa, Canada: Filters for ERIS Spectrometer.

Korth Kristalle GmbH, Kiel: Lenses for ERIS Spectrometer.

Kugler GmbH, Salem: ERIS.

Laser Components GmbH, Olching: ERIS Filters.

Laserjob GmbH, Grafrath: Development of X-ray baffles for eROSITA.

Luxel Corporation, USA: Filter for eROSITA.

Media Lario Technologies, Borisio Parini, Italy: eROSITA mirror system.

MOOG Inc., East Aurora, USA: high pressure valves for eROSITA.

OHB System AG, München; EUCLID design study.

PNSensor, München: Development and Manufacturing of semiconductor detectors; Mounting of semiconductor Systems; ARGOS.

RUAG Austria: Telescope-Cover-Mechanism for eROSITA.

Sacher Lasertechnik, Marburg: Metrology Laser for GRAVITY.

Technotron, Lindau: Development and manufacturing of electronics boards for eROSITA.

## Activities in Transfer of Know-How

The high number of cooperations with industry and other research groups leads to a natural transfer of scientific and technical know-how, especially if orders are given to the industry. In contrast, we list in the following those cooperations which are financed by the industry as well as patents and licenses.

### A) Research Cooperations Financed by Industry

Dr. Johannes Heidenhain-Stiftung, Traunreut: Technologische Entwicklung auf dem Gebiet der Röntgenoptik und Röntgenspektroskopie; Entwicklung schneller Detektoren für Infrarot- und Röntgenstrahlung.

OHB-System GmbH, Bremen: Voruntersuchung für einen flexiblen S/W Simulator für Kleinsatelliten.

PNSensor, München, Aufbau und Test eines Röntgen-Gamma-Strahlen-Detektors.

### B) Licenses

Baader Planetarium GmbH, Mammendorf: Reflexionsgitter Spectrograph für Lehrzwecke.

PNSensor, München, Detektortechnologie.

Baader Planetarium GmbH, Mammendorf: Baches Echelle Spectrograph.

### C) Cooperations with Universities (by Contract)

Detector Development:

Universität Mannheim, ASIC Entwicklung.

Politecnico di Milano, Analog-Elektronik Entwicklung.

Universität Jena, Entwicklung und Fertigung von Röntgen-Zonenplatten.

### D) Patents - Activities in 2016

The MPE held a total of 10 patents by the end of 2016.