

Publication list (1992-2006)

In refereed journals:

1. **Geminga: Relative Phases of the X-ray and Gamma-ray Pulses**
Becker, W., Brazier, K.T.S., Trümper, J., A & A, 1993, 273, 421-424
2. **Discovery of pulsed X-rays from the binary and ms pulsar PSR J0437-4715**
Becker, W., Trümper, J., Nature, 1993, 365, 528-530
3. **ROSAT observations of the radio and gamma-ray pulsar PSR 1706-44**
Becker, W., Brazier, K.T.S., Trümper, J., 1995, A & A, 298, 528-534
4. **ROSAT observations of PSR 2334+61 in the supernova remnant G114.3+0.3**
Becker, W., Brazier, K.T.S., Trümper, J., A & A, 1996, 306, 464-466
5. **ROSAT Observations of Gamma-Ray Pulsars: Vela, PSR 1706-44 and PSR 1951+31**, Becker, W., Trümper, J., A & A. Sub., 1996, 120C, 69-72
6. **ROSAT Observations of the Binary Millisecond Pulsar PSR J0751+1807**
Becker, W., Trümper, J., Lundgreen, S.C., Cordes, J.M., Zepka, A.F., MNRAS, 1996, 282, L33-L36
7. **High-resolution X-ray imaging of the supernova remnant MSH 15-52**
Brazier, K.T.S., Becker, W., MNRAS, 1997, 284, 355-340
8. **The X-ray Luminosity of Rotation-Powered Neutron Stars**
Becker, W., Trümper, J., 1997, A & A, 326, 682
9. **X-ray Emission from Isolated Neutron Stars**
Trümper, J., Becker, W., 1998, in *Advances in Space Research*, eds., P.Caraveo et al., Vol.21.p203
10. **Search for Isolated Neutron Stars in the ROSAT HRI database**
Musso, C., Mignani, R., Becker, W., Trümper, J., Bignami, G., Caraveo, P.A., Nasuti, F., 1998, in *Advances in Space Research*, eds. P.Caraveo et al., Vol.21, p255-258
11. **BeppoSax observations of the binary pulsar PSR B1259-63**
Nicastro,L., Dal Fiume, D., Orlandi, M., Cusumano, G., Sacco, B., Campana, S., Tavani, M., Becker, W., 1998, in *The Active X-ray Sky. Results from BeppoSax and RXTE*, eds. L.Scarsi, H.Brandt, P.Giommi, F.Fiore, Elsevier, p170
12. **The X-ray emission properties of millisecond pulsars**
Becker, W., Trümper, J., 1999, A & A, 341, 803-817
13. **The putative pulsar-wind nebulae of the three Musketeers PSR B1055-52, B0656+14 and Geminga revisited**, Becker, W., Kawai, N., Brinkmann, W., Mignani, R., 1999, A & A, 352, 532-542

14. **ROSAT HRI observation of the supernova remnant Kes 32 and the nearby radio pulsar PSR B1610-50,** Brinkmann, W., Kawai, N., Scheingraber, H., Tamura, K., Becker, W., 1999, A&A, 346, 599-603
15. **The pulse shape and spectrum of the millisecond pulsar PSR J0218+4232 in the energy band 1-10 keV observed with BeppoSAX,** Mineo, T., Cusumano, G., Kuiper, L., Hermen, W., Massaro, E., Becker, W., Nicastro, L., Sacco, B., Verbunt, F., Lyne, A.G., Stairs, I.H., Shgibata, S., 2000, A & A, 355, 1053-1059
16. **X-ray emission properties of rotation-driven pulsars**
Becker, W., 2000, in Advances in Space Research, Vol.25, p647-658
17. **X-Rays from the Nearby Solitary Millisecond Pulsar PSR J0030+0451 - the Final ROSAT Observations.**
Becker, W., Trümper, J., Lommen, A.E., Backer, D.C., 2000, ApJ, 545, 1015-1019
18. **ASCA Observations of the Millisecond Pulsar PSR J2124-3358**
Sakuray, I., Kawai,N., Torii, K., Negoro, H., Nagase, F., Shibata, S., Becker, W., 2001, PASJ, 53, 535-538
19. **Discovery of X-Ray Emission from the Crab Pulsar at Pulse Minimum**
Tennant, A.F., Becker, W., Juda, M., Elsner, R.F., Kolodziejczak, J.J. Murray, S.sS., O'Dell, S.L., Paerels, F., Swartz, D.A., Shibasaki, N., Weisskopf, M.C., 2001, ApJ, 554, L173-L176.
20. **The supernova remnants G 67.7+1.8, G 31.5-0.6 and G 49.2-0.7**
Mavromatakis, F., Papamastorakis, J., Ventura, J., Becker, W., Paleologou, E. V., Schaudel, D., 2001, A&A, 370, 265-272
21. **The X-ray nebula of the filled center supernova remnant 3C 58 and its interaction with the environment,** Bocchino, F., Warwick, R.S., Marty, P., Lumb, D., Becker, W., Pigot, C., 2001, A&A, 369, 1078-1087
22. **New light on the X-ray spectrum of the Crab Nebula**
Willingale, R., Aschenbach, B., Griffiths, R. G., Sembay, S., Warwick, R. S., Becker, W., Abbey, A. F., Bonnet-Bidaud, J.-M., 2001, A&A, 365, L212-L217
23. **X-ray radiation from the millisecond pulsar J0437-4715**
Zavlin, V.E., Pavlov, G.G., Sanwal, D., Manchester, R.N., Trümper, J., Halpern, J.P., Becker,W., 2002, ApJ, 569, 894
24. **BeppoSAX Observations of the three Gamma-ray pulsars PSR B0656+14, PSR B1055-52 and PSR B1706-44,**
T.Mineo, E.Massaro, G.Cusumano, W.Becker, A&A, 392, 181, (2002)

25. **Hubble Space Telescope Proper Motion Confirms the Optical Identification of the Nearby Pulsar PSR 1929+10,**
 Mignani, R.P.. A. De Luca, P.A. Caraveo, W. Becker, ApJ, 580, L147-L150, (2002)
26. **New optical filamentary structures in Pegasus,**
 Boumis, P., F. Mavromatakis, E.V. Paleologou, W. Becker, A&A, 396, 225-234 (2002)
27. **Phase Variations of the X-Ray Spectral Features in the Radio-quiet Neutron Star 1E 1207-5209,** Mereghetti, S., A. De Luca, P.A. Caraveo, W. Becker, R. Mignani, G.F. Bignami, ApJ, 581, p1280-1285, (2002)
28. **X-Radiation from the Millisecond Pulsar J0437-4715,**
 Zavlin, V. E., G.G. Pavlov, D. Sanwal, R.N. Manchester, J. Trümper, J.P. Halpern, W. Becker, ApJ, 569, 894-902, (2002)
29. **Pulse Phase Variations of the X-Ray Spectral Features in the Radio-quiet Neutron Star 1E 1207-5209 ,** Mereghetti, S., A. De Luca, P.A. Caraveo, W. Becker, R. Mignani, G.F. Bignami, ApJ, 581, 1280-1285, (2002)
30. **XMM-Newton Observations of PSR B1823-13: An Asymmetric Synchrotron Nebula around a Vela-like Pulsar**, Gaensler, B.M., Schulz, N.S., Kaspi, V.M., Pivovaroff, M.J., Becker, W., ApJ, 588, 441, 2003
31. **Chandra X-ray observatory observations of the globular cluster M28 and its millisecond pulsar PSR 1821-24**
 Becker, W., Swartz, D.A., Pavlov, G.G., Elsner, R., Grindlay, J., Mignani R., Tennant A., Backer, D., Pulone L., Testa, V., Weisskopf, M., ApJ, 594, 798, 2003
32. **Search for the Optical Counterpart of the Vela Pulsar X-Ray Nebula**
 Mignani, R.P., De Luca, A., Kargaltsev, O., Pavlov, G.G., Zaggia, S., Caraveo, P.A., Becker, W., 2003, ApJ, 594, 419
33. **Geminga's Tails: A Pulsar Bow Shock Probing the Interstellar Medium**
 Caraveo, P. A.; Bignami, G. F.; DeLuca, A.; Mereghetti, S.; Pellizzoni, A.; Mignani, R.; Tur, A.; Becker, W., 2003, SCIENCE, 301, 5638, pp. 1345ff
34. **BeppoSAX observation of PSR B1937+21**
 Nicastro, L.; Cusumano, G.; Loehmer, O.; Kramer, M.; Kuiper, L.; Hermsen, W.; Mineo, T.; Becker, W., 2003, A &A, 413, 1065, 2004
35. **VLT observations of the solitary millisecond pulsar PSR J2124-3358**
 Mignani, R., Becker, W., Advances in Space Research, Volume 33, Issue 4, p.616, 2004
36. **Chandra Phase-Resolved X-Ray Spectroscopy of the Crab Pulsar**
 Weisskopf, Martin C.; O'Dell, Stephen L.; Paerels, Frits; Elsner, Ronald F.; Becker, Werner; Tennant, Allyn F.; Swartz, Douglas A., ApJ, 601, 1050, 2004
37. **Timing accuracy and capabilities of XMM-Newton**
 Kirsch, M.G.F., Becker, W., Benlloch-Garcia, S., Jansen, F.A., Kendziorra, E., Kuster, M., Lammers, U., Pollock, A.M.T., Possanzini, F., Serpell, E., Talavera, A., SPIE, 5165, 85, 2004

38. **Spectral and timing properties of the X-ray emission from the millisecond pulsar PSR B1821-24**
 Mineo, T.; Cusumano, G.; Massaro, E.; Becker, W.; Nicastro, L., A & A, 423, 1045, 2004
39. **Revealing the X-ray emission processes of old rotation-powered pulsars: XMM-Newton Observations of PSR B0950+08, PSR B0823+26 and PSR J2043+2740**
 Becker, W.; Weisskopf, M. C.; Tennant, A. F.; Jessner, A.; Dyks, J.; Harding, A. K.; Zhang, S. N., ApJ, in press, 2004
40. **A multi-wavelength search for a counterpart of the unidentified Gamma-ray source 3EG J2020+4017 (2CG078+2)**
 Becker, W.; Weisskopf, M. C.; Arzoumanian, Z.; Lorimer, D.; Camilo, F.; Elsner, R. F.; Kanbach, G.; Reimer, O.; Swartz, D. A.; Tennant, A. F.; O'Dell, S. L., ApJ, 615, 897, 2004
41. **Precise Localization of the Soft Gamma Repeater SGR 1627-41 and the Anomalous X-Ray Pulsar AXP 1E1841-045 with Chandra**
 Walch, S., Patel, S.K., Kouveliotou, C., Bouchet, P., Ötzel, F., Tennant, A.F., Woods, P.M., Hurley, K., Becker, W., Slane, P., ApJ., 615, 887, 2004
42. **XMM-Newton observations of the supernova remnant RX J0852.0-4622/GRO J0852-4642**
 Iyudin, A. F., Aschenbach, B., Becker, W., Dennerl, K., Haberl, F., A & A, 429, 2251, 2005
43. **A Multiwavelength Study of PSR B0628-28: The First Overluminous Rotation-powered Pulsar?**
 Becker, W., Jessner, A., Kramer, M., Testa, V., Howaldt, C., ApJ, 633, 367, 2005
44. **Searches for diffuse X-ray emission around millisecond pulsars: an X-ray nebula associated with PSR J2124-3358**
 Hui, C. Y., Becker, W., A & A., 448, 13, 2006
45. **A Multiwavelength Study of the Pulsar PSR B1929+10 and its X-Ray Trail**
 Becker, W., Kramer, M., Jessner, A., Taam, R.E., Jia, J.J., Cheng, K.S., Mignani, R., Pellizzoni, A., de Luca, A., Słowikowska, A., Caraveo, P.A., ApJ, 645, 1421, 2006
46. **X-ray observations of RX J0822-4300 and Puppis-A**
 Hui, C. Y., Becker, W., A & A, 454, 543, 2006
47. **Chandra X-Ray Observations of 19 Millisecond Pulsars in the Globular Cluster 47 Tucanae**
 Bogdanov, S., Grindlay, J.E., Heinke, C.O., Camilo, F., Freire, P., Becker, W., ApJ, 646, 110, 2006
48. **Probing the proper motion of the central compact object in Puppis-A with the Chandra high resolution camera**
 Hui, C. Y., Becker, W., A&A. 457, 33, 2006
49. **A search for a counterpart of the unidentified gamma-ray source 3EG J2020+4017**
 Weisskopf, M.C., Swartz, D.A., Carraminana, A., Carrasco, L., Kaplan, D.L., Becker, W., Elsner, R.F., Kanbach, G., O'Dell, S.L., Tennant, A.F., ApJ, 652, 387, 2006

50. **X-ray emission properties of the old pulsar PSR B2224+65**
 Hui, C. Y., Becker, W., submitted to A&A, 2006 (astro-ph/0610505)
51. **XMM-Newton Observations of PSR B1957+20**
 Huang, H.H., Becker, W., submitted to A&A, 2006
52. **Exploring the Central Compact Object in the RX J0852.0-4622 Supernova Remnant with XMM-Newton**
 Becker, W., Hui, C.Y., Aschenbach, B., Iyudin, A., submitted to A&A (astro-ph/0607081)

In unrefereed journals:

45. **PSR 1706-44**
 Becker, W., Predehl, P., Ögelman, H.B., Trümper, J., 1992, IAU Circular No. 5554
46. **Search for Cooling Neutron Stars in the ROSAT Survey**
 Becker, W., Trümper, J., Ögelman, H.B., 1993, in: *Isolated Pulsars*, eds. K.A. Van Riper, R.I. Epstein & C. Ho, p104 - 109, Cambridge University Press
47. **ROSAT Observation of RCW 103**
 Becker, W., Trümper, J., Hasinger, G., Aschenbach, B., 1993, in: *Isolated Pulsars*, eds. K.A. Van Riper, R.I. Epstein & C. Ho, p116-121, Cambridge University Press
48. **PSR J0437-4715**
 Becker, W., Trümper, J., Brazier, K.T.S., Belloni, T., 1993, IAU Circular No. 5701
49. **PSR 2334+61**
 Becker, W., Trümper, J., Ögelman, H.B., 1993, IAU Circular No. 5805
50. **PSR 0823+26**
 Sun, X., Trümper, J., Dennerl, K., Becker, W., 1993, IAU Circular No. 5895
51. **PSR J0751+18: A new binary millisecond Pulsar in an EGRET source error box**
 Lundgren, S., Zepka, A.F., Cordes, J.M., Becker, W., Kanbach, G., Trümper, J., Fierro, J.M., 1993, AAS 183,37.03L
52. **ROSAT HRI Observations of the Crab Pulsar: An Improved Temperature upper limit for PSR 0531+21**
 Becker, W., Aschenbach, B., 1995, in: *The Lives of the Neutron Stars*, eds. A. Alpar, U. Kilizoglu & J. van Paradijs, p47
53. **ROSAT erforscht Neutronensterne**
 Becker, W., 1995, Astronomie & Raumfahrt, Heft 25, Ausgabe 1/95, 32. Jahrgang, Feb. 199
54. **ROSAT Observations of Neutron Stars**
 Becker, W., 1995, in: *The Annals of the Texas Symposium on Relativistic Astrophysics and Cosmology*, eds.
 Böhringer, H., Morfill, G., Trümper, J., New York Academy of Science, Vol. 759,

55. **GRO 1735-27**
Aschenbach, B., Voges W., Becker, W., 1995, IAU Circular No. 6212
56. **A ROSAT view of Neutron Stars**
Becker, W., 1996, in *Röntgenstrahlung from the Universe*, eds. U. Zimmermann, J. Trümper & H. York, MPE-Report 263, p103-106
57. **X-ray and Gamma-Ray Observations of the Pulsar PSR J0538+2817**
Sun, X., Anderson, S., Aschenbach, B., Becker, W., Egger, R., Kanbach, G., Merck, M., Trümper, J., Wolszczan, A., 1996, in *Röntgenstrahlung from the Universe* eds. U. Zimmermann, J. Trümper & H. York, MPE-Report 263, p195-196
58. **Apastron observation of PSR B1259-63**
Nicastro, L., Dal Fiume, D., Sacco, B., Cusumano, G., Mineo, T., D'Amica, N., Campana, S., Tavani, M., Becker, W., Hermsen, W., Johnston, S., 1998, in *Neutron Stars and Pulsars. Thirty years after the discovery*, eds. N. Shibasaki, N. Kawai, S. Shibata, T. Kifune, Universal Academy Press, Tokyo, Japan, ISBN 4-946443-44-4, p.525
59. **PSR J1024-0719**
Becker, W., Trümper, J., 1998, IAU Circular No. 6829
60. **PSR J1744-1134**
Becker, W., Trümper, J., Hasinger, G., 1998, IAU Circular No. 6845
61. **An X-ray Study of isolated neutron stars and their wind nebulae**
Becker, W., 1999, in *Proceedings of the German-Japanese Workshop on High Energy Astrophysics*, eds. W. Becker, M. Itoh, MPE-Report 270, p128-135
62. **Timing and spectral properties of PSR B1509-58 observed with BeppoSAX**
Cusumano, G., Mineo, T., Nicastro, L., Massaro, E., Massaglia, S., Trussoni, E., Becker, W., in *Pulsar Astronomy -- 2000 and Beyond*, eds M.Kramer, N.Wex and R.Wielebinski, ASP Conf. Series, 2000, Vol 202, 329-330
63. **X-ray Emission Characteristics of Pulsars and their Wind Nebulae**
Becker, W., in *Pulsar Astronomy -- 2000 and Beyond*, eds M.Kramer, N.Wex and R.Wielebinski, ASP Conf. Series, 2000, Vol 202, 321-326
64. **X-ray Emission Characteristics of Pulsars.**
Becker, W., in *Highly Energetic Physical Processes and Mechanisms for Emission from Astrophysical Plasmas*, eds P.C.H.Martens & S.Tsuruta and M.A.Weber, ASP Conference series 2000, Vol 195, p49ff
65. **An X-ray view of Millisecond Pulsars.**
Becker, W., 2001, in X-ray Astronomy '99: Stellar Endpoints, AGN & the Diffuse X-ray Background, eds N.White et al., AIP Conference Proceedings 599, p13-24
66. **Pulsars and Isolated Neutron Stars – A Review**
Becker, W., Pavlov, G.G., in *The Century of Space Science*, Eds J.Bleeker, J.Geiss & M.C.E. Huber, Kluwer Academic Publishers, 721 - 758, 2002
67. **Galactic SNR Candidates in the ROSAT All-Sky Survey**, in *Neutron Stars in Supernova Remnants*, Schaudel, D., W. Becker, W.Voges, B. Aschenbach, W. Reich, M. Weisskopf, ASP Conference Series, Vol. 271, eds Patrick O. Slane and Bryan M. Gaensler. San Francisco: ASP, 391 - 394, 2002

68. **X-ray Observations of Neutron Stars: Recent Results from XMM-Newton**
 W. Becker, in Proceedings of the 270 Heraeus-Seminar on Neutron Stars and Supernova remnants, eds, W. Becker, H. Lesch & J. Trümper, MPE-Report 278, (2002)
69. **New light on PSR 0656+14 from XMM-Newton,**
 Kennea, J., W. Becker, F. Cordova, American Astronomical Society Meeting 201, #139.05
70. **Galactic SNR candidates in the ROSAT all-sky survey,**
 Schaudel, D., W. Becker, B. Aschenbach, J. Trümper, W. Reich, M. Weisskopf, *MPE Report 278*, eds W. Becker, H. Lesch, and J. Trümper, p26-28, 2002
71. **X-ray Observations of Neutron Stars and Pulsars: First Results from XMM-Newton,** Becker, W., B. Aschenbach, MPE Report 278, eds W. Becker, H. Lesch, and J. Trümper, p64-86, 2002
72. **The 2-10 keV emission properties of PSR B1937+21 ,**
 Nicastro, L., G. Cusumano, L. Kuiper, W. Becker, W. Hermann, M. Kramer, *MPE Report 278*, eds W. Becker, H. Lesch, and J. Trümper, 87-90, 2002
73. **X-ray spectral properties of the Gamma-ray pulsars PSR B0656+14 and PSR B1706-44,**
 E. Massaro, T. Mineo, G. Cusumano, Sacco, B., W. Becker, *MmSAI*, 73, 1066 (2002)
74. **High-time resolution spectroscopy with XMM-Newton and XEUS** Kendziorra, E., Kuster, M., Kirsch, M., Risse, P., Staubert, R., Becker, W., Strueder, L., Treis, J., Lechner, P.; Holl, P., SPIE, 4851, 810, 2003
75. **Chandra X-ray observations of the globular cluster M28 and optical HST identification of the X-ray sources**
 Testa, V.; Becker, W.; Swartz, D. A.; Pavlov, G. G.; Eisner, R. F.; Grindlay, J.; Mignani, R.; Tennant, A. F.; Backer, D.; Pulone, L.; Weisskopf, M. C., *Memorie della Societa Astronomica Italiana*, v. 75, p.50, 2004
76. **Geminga: a tale of two tails, and much more**
 Caraveo, P. A.; Bignami, G. F.; De Luca, A.; Pellizzoni, A.; Mereghetti, S.; Mignani, R. P.; Tur, A.; Becker, W., *Memorie della Societa Astronomica Italiana*, v.75, p.470, 2004
77. **Revealing the X-ray emission processes of old rotation-powered pulsars: XMM-Newton Observations of PSR B0950+08, PSR B0823+26 and PSR J2043+2740**
 Becker, W., Weisskopf, M.C., Tennant, A.F., Jessner, A., Dyks, J., Harding, A. K., Zhang, S.N., HEAD meeting #8, #08.10, 2004
78. **A multi-wavelength search for a counterpart of the brightest unidentified Gamma-ray source 3EG J2020+4017 (2CG078+2)**
 Becker, W.; Weisskopf, M. C.; Arzoumanian, Z.; Lorimer, D.; Camilo, F.; Elsner, R. F.; Kanbach, G.; Reimer, O.; Swartz, D. A.; Tennant, A. F.; O'Dell, S. L., HEAD meeting #8, #08.11, 2004
79. **Phase Resolved Spectroscopy of PSR 0656+14**
 Kennea, J. A.; Becker, W.; Cordova, F. A., HEAD meeting #8, #08.21, 2004

Books and Proceedings:

1. **Neutron Stars and Pulsars: About 40 yrs after the discovery**
Becker, W., H.H. Huang, *MPE-Report 291*, 2007
(Proceedings des 363rd WE-Heraeus Seminar, Bad Honnef, May 2006)
2. **Neutron Stars, Pulsars, and Supernova Remnants**
Becker, W., H. Lesch, J. Trümper, *MPE-Report 278*, 2002
(Proceedings des 270 WE-Heraeus Seminar, Bad Honnef, January 2002)
3. **Japanese-German Workshop on High Energy Astrophysics**
Becker, W., Itoh, M., *MPE-Report 270*, 1999

In preparation:

4. **Neutron Stars and Pulsars: 40 yrs after the discovery**
Becker, W., Springer Lecture Notes (to appear in 2007)