



### Personal

Birth Date 18 June 1953; Address: Wettersteinring 22, D-85354 Freising  
 Affiliation: Max Planck Institute für extraterrestrische Physik (MPE),  
 D-85748 Garching  
 Email [rod@mpe.mpg.de](mailto:rod@mpe.mpg.de), <http://www.mpe.mpg.de/~rod/rod.html>

### Academic Career

- 1978 Diploma, Nuclear Physics, Johannes Gutenberg University in Mainz
- 1988 Ph.D. in Physics & Astronomy at Technical University München
- 1998 Habilitation, Technical University München, 'Privatdozent' at TU München
- 2010 Nomination as Professor (apl.) at TU München
- 1979+ Staff scientist in the High-Energy Astrophysics Group of MPE, leading nuclear astrophysics activities of the group (research team size ~3 PostDocs, ~5 students, 2009+)
- 1995 Godfrey Fellow & Visiting Scientist at Clemson University (USA) (with D.D. Clayton)
- 1999+ Teaching Nuclear Astrophysics & High-Energy Astrophysics Lectures and Seminars at TU München, at International Graduate School for Astrophysics (IMPRS), and several international universities & institutes

### Science Teams: Memberships, Leaderships

- 1991 – 2000 Co-Investigator of COMPTEL instrument, NASA Compton Gamma-Ray Observatory mission
- 2004 – today Co-PI of SPI Instrument on INTEGRAL Mission (since 2002; Co-PI since 2004) INTEGRAL Science Working Team and ESA's INTEGRAL User Group
- 2007 – today Munich Cluster of Excellence "Origin and Evolution of the Universe": Coordinator for Research Area "Origin of the heavy elements" and Research Board Member
- 2010 – 2013 EuroGenesis Program of the European Science Foundation (PI; Steering Committee)

### Societies and Committees

- 2004 – 2006 Advisory Board of the Joint Institute for Nuclear Astrophysics (JINA)
- 2008 – 2009 Chairman of the Bethe Prize Committee of the American Physics Society
- 2009 – 2015 Representative of MPE scientists in the CPT Section of Max Planck Society (elected)
- 2010 – 2015 Member of Senate of Max Planck Society
- 2010 – 2015 Representing Nuclear Astrophysics in Germany's Astro-Teilchen Komitee KAT (elected)
- others: German Physical Society 'Deutsche Physikalische Gesellschaft' (DPG); German Astronomers Society 'Astronomische Gesellschaft' (AG), American Physical Society (APS), International Astronomical Union (IAU)  
 Science Advisory Board member of several international conferences (IAU, COSPAR, ESA)

**Science and Results**

- Primary research interests center on astrophysics involving gamma rays, specifically nuclear astrophysics with gamma-ray line astronomy from cosmic radioactivities, study of supernovae, stars, and origins of cosmic rays.
- Research on the origin of  $^{26}\text{Al}$  radioactivity, and of  $^{60}\text{Fe}$  and  $^{44}\text{Ti}$  from supernovae, leading to involvements and research projects in star formation, massive star structure and evolution, dynamics and evolution of the interstellar medium, and supernova explosion mechanisms and nuclear-reaction physics.
- Research and method developments for the analysis of measurements with gamma-ray telescopes.
- Supervision of students (B.Sc., Diploma/Master, PhD); teaching of advanced astrophysics courses at MPE and the Technical University München's Physics Department, and other universities (a.o. Clemson/USA, UPC Barcelona, USP Sao Paulo, U Tokyo)
- Organization of international conferences, conference sessions, and workshops, a.o. the conference series "Astronomy with Radioactivities", which has been gathering observers from astronomy and from presolar grains and meteorites as well as theorists on cosmic nucleosynthesis. Writing/editing of nuclear-astrophysics books, LNP (2010), ASSL (2018)
- Science team management and participation in international science management, through committees of the science community, and with international space agencies and national science organisations
- Publication of more than 500 papers in refereed journals, conference proceedings, and books, with above 12000 citations; h-index 55; more than 340 talks/presentations at international institutes and conferences

**Selected Publications**

1. *Astrophysics with radioactive isotopes*. R. Diehl, D. Hartmann, N. Prantzos. Springer Astrophysics and Space Science Library, 453 (2018)
2. *INTEGRAL/SPI gamma-ray line spectroscopy*. R. Diehl *et al.*, A&A, 559, 99 (2018)
3. *Positron annihilation signatures from the microquasar V404 Cygni*. Siegert T, Diehl R., *et al.*, Nature 531 (2016)
4. *Early  $^{56}\text{Ni}$  decay  $\gamma$ -rays from SN2014J suggest an unusual explosion*. Diehl R., *et al.*, Science 345, 1162 (2014)
5. *Nuclear astrophysics lessons from INTEGRAL*. Diehl R., Rep.Prog.Phys., 76b, 6301 (2013)
6. *Kinematics of massive star ejecta in the Milky Way as traced by  $^{26}\text{Al}$* . Kretschmer K. *et al.*, A&A, 559, 99 (2013)
7. *The 511 keV emission from positron annihilation in the Galaxy*. Prantzos *et al.*, Rev.Mod.Phys., 83, 2001 (2011)
8. *Astronomy with Radioactivities*. Eds. Diehl R, Hartmann DH, Prantzos N, Lecture Notes in Physics 812 (2010).
9. *Radioactive  $^{26}\text{Al}$  from massive stars in the Galaxy*. Diehl R. *et al.*, Nature, 439, (2006)
10. *COMPTEL observations of Galactic  $^{26}\text{Al}$  emission*. Diehl R. *et al.*, A&A 298, (1995)