

# Galactic Frontiers 2026

*Advancing X-Ray Astronomy in a Multiwavelength Universe — WE-Heraeus Seminar No. 858*

*June 15–18, 2026 | Physikzentrum Bad Honnef, Germany*

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## Monday, June 15 — Stars & Compact Objects

### Morning Session: Stars

- Observations of stars and stellar populations in the X-ray domain (eROSITA, XMM-Newton, Chandra, etc.)
- Correlation of models and X-ray observations with data at other wavelengths (radio, infrared, optical, UV, gamma)
- Interaction between stars and the Galaxy — from star formation to stellar winds and cosmic bubbles

**Invited speakers:** Christian Schneider (University of Kiel, Germany) — Yaël Nazé (University of Liège, Belgium) (both confirmed)

### Afternoon Session: Compact Objects

- Observations of compact objects in the X-ray and gamma-ray regimes
- Searches for compact objects with MeerKAT, ASKAP, and Parkes
- What do we know about neutron stars almost 60 years after their discovery?

**Invited speakers:** Anna Watts (University of Amsterdam, The Netherlands) — Marta Burgay (INAF Cagliari, Italy) (both confirmed)

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## Tuesday, June 16 — Supernova Remnants & Amateur Networks

### Morning Session: Supernova Remnants

- Studies of supernova remnants in the X-ray band
- Searches for new supernova remnants in the radio domain with MeerKAT and ASKAP
- Identification and optical studies of supernova remnants using international networks of amateur astronomers

**Invited speakers:** Robert Fesen (Dartmouth College, USA) — Anne Decourchelle (CEA Paris-Saclay, France) (both confirmed)

### Afternoon Session: International Networks of Amateur Astronomers

- Observations of supernova remnants and extended low-surface-brightness nebulae
- Overview of amateur astronomy networks and their observational capabilities
- Reports on current and planned observations and results

**Invited speakers:** Steeve Body (New Horizon Team, Australia) — Rainer Raupach (Capella Team, Germany) (both confirmed)

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## Wednesday, June 17 — ISM & Population Studies

### Morning Session: ISM and Galactic Diffuse Emission

- Emission from the Local Hot Bubble and other interstellar structures (H II regions, superbubbles)
- The Galactic Ridge and unresolved stellar emission within the Galactic plane
- Properties and possible formation scenarios of the eROSITA bubbles

**Invited speakers:** Mike Yeung (MPE, Garching, Germany) — Martin Mayer (FAU, Erlangen, Germany) (both confirmed)

### Afternoon Session: Population Studies of Galactic Sources

- Source populations and diffuse emission in the Milky Way's satellite galaxies
- Source populations and diffuse emission in Local Group and nearby galaxies
- X-ray emission in distant galaxies and its dependence on galaxy size, morphology, star formation rate, and metallicity

**Invited speakers:** Elias Kyritsis (University of Crete / from Jan 2026 at MPE) — Antara Basu-Zych (NASA / UMBC, USA) (both confirmed)

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## Thursday, June 18 — Excursion

**09:00 – 16:00**

Excursion to the *100m Radio Telescope in Effelsberg*, operated by the Max Planck Institute for Radio Astronomy, Bonn

For further information and updates, please visit the conference website or contact the organizing committee.

Status as of October 16, 2025