



integral

22 YEARS CATCHING RESULTS AND DISCOVERIES

21-24 October 2024, ESA – ESAC, Madrid, Spain

Rationale

The **IN**Ternational **G**amma-**R**ay **A**strophysics **L**aboratory (**INTEGRAL**) has been crucial in our understanding of astrophysical phenomena over a wide energy and temporal range. Its unique capabilities in terms of combined sensitivity, energy coverage, energy resolution, and sky coverage led to the discovery of many classes of previously unknown astrophysical objects and the elucidation of poorly understood transient celestial sources. The mission's long life has allowed for very long observations that have permitted the detection of elusive signals from faint gamma-ray line emissions, a unique INTEGRAL asset. The availability of telemetry within seconds from detection and the high duty cycle have permitted the discovery and characterization of rare transient events, which have made INTEGRAL a cornerstone in the new era of time-domain and multi-messenger astronomy.

Topics

The INTEGRAL Mission and its Legacy – Multi-messenger and time domain astronomy including GRBs – Survey from Gamma-ray to soft X-rays – Galactic and Extragalactic X and Gamma-ray Sources – Gamma-ray lines – Other scientific topics: Sun, Planets, Ionosphere, DM, etc – From INTEGRAL to the next generation of X/Gamma-ray facilities: heritage and future perspectives

Scientific Organising Committee (SOC)

| | |
|-----------------------------------|---|
| Angela Bazzano | National Institute of Astrophysics, IAPS, Rome, Italy |
| Guillaume Belanger | European Space Agency, ESAC, Madrid, Spain |
| Enrico Bozzo | University of Geneva, Switzerland |
| Brad Cenko | NASA Goddard Space Flight Center in Greenbelt, MD, USA |
| Jérôme Chenevez | Technical University of Denmark (DTU), Lyngby, Denmark |
| Matthias Ehle | European Space Agency, ESAC, Madrid, Spain |
| Carlo Ferrigno (chair) | ISDC, University of Geneva, Switzerland |
| Sergei Grebenev | Space Research Institute (IKI), Moscow, Russia |
| Jochen Greiner | MPI for extraterrestrial Physics, Garching, Germany |
| Wim Hermsen | SRON, Leiden, The Netherlands |
| Margarita Hernanz | IEEC - CSIC, Barcelona, Spain |
| Roman Krivonos | Space Research Institute (IKI), Moscow, Russia |
| Philippe Laurent | IRFU / Service D'Astrophysique, CEA Saclay, France |
| Julien Malzac | CNRS, IRAP, Toulouse, France |
| Miguel Mas-Hesse | Centro de Astrobiología (CSIC-INTA), Madrid, Spain |
| Julie McEnery | NASA Goddard Space Flight Center in Greenbelt, MD, USA |
| Jan-Uwe Ness | European Space Agency, ESAC, Madrid, Spain |
| Francesca Panessa | National Institute of Astrophysics, IAPS, Rome, Italy |
| Jean-Pierre Roques | CNRS, IRAP, Toulouse, France |
| Norbert Schartel | European Space Agency, ESAC, Madrid, Spain |
| Lara Sidoli | National Institute for Astrophysics INAF-IASF, Milan, Italy |
| Rashid Sunyaev | Max Planck Institute for Astrophysics, Garching, Germany |
| Pietro Ubertini (co-chair) | National Institute of Astrophysics, IAPS, Rome, Italy |
| Ed van den Heuvel | API of Astronomy, Amsterdam, The Netherlands |

Local Organising Committee (LOC)

Guillaume Bélanger, Pedro José Blay, Isabel Caballero, Jacobo Ebrero, Matthias Ehle, Cristina Hernández, Jari Kajava, Pablo Marcos, Jan-Uwe Ness, Miguel Mas-Hesse, Celia Sánchez

*A conference organized by the
INTEGRAL Users Group and the INTEGRAL Science Operations Centre*

www.esa.int

Nuclear explosions on a neutron star feed its jets
*Danielle Futselaar and Nathalie Degenaar, Anton
Pannekoek Institute, University of Amsterdam*

