

Caroline Herschel Medal Winners Citations

Professor Isobel Hook – 2025

The Caroline Herschel Medal 2025 is awarded to Prof. Dr. Isobel Hook of Lancaster University in recognition of her outstanding contributions to astrophysics, particularly her leadership in the study of distant supernovae and the accelerating expansion of the universe. Prof. Hook has been instrumental in advancing the field through her significant roles in major international collaborations. Her work with the Gemini Multi-Object Spectrograph (GMOS) has enhanced our ability to probe the faintest and most distant cosmic phenomena, while her contributions to 4MOST, Euclid and the Rubin Observatory advance large-scale surveys of dark energy and galaxy evolution.

Prof. Hook's involvement in the future Extremely Large Telescope (ELT) further strengthens her reputation as a visionary in the development of next-generation astronomical facilities.

As a dedicated educator and mentor, and leader of the Lancaster Astrophysics group, Prof. Hook inspires the next generation of astronomers and fosters global scientific collaboration. Her work epitomizes the spirit of discovery and excellence celebrated by the Caroline Herschel Medal, honoring her profound impact on astronomy and her enduring legacy in the scientific community.

Dr Linda J Tacconi - 2024

Dr Linda J Tacconi (Max Planck Institut für Extraterrestrische Physik, Garching, Germany) is awarded the 2024 Caroline Herschel Medal in recognition of her world-leading observational studies of the cosmic evolution of dense, star-forming molecular gas in galaxies, as well as for her unique contributions to international leadership in astronomy, and service to the European astronomical community. Her research has highlighted the critical importance of the molecular interstellar medium and its intricate relationships with overall galaxy properties. As the president of the European Southern Observatory council, chair of the Atacama Large Millimeter/submillimeter Array board, chair of the European Space Agency Voyage 2050 senior committee, and Germany's representative on the ESO Council, Linda Tacconi skillfully guided European Astronomy, and her exceptional leadership laid the basis for groundbreaking discoveries.

Professor Gillian Wright -2023

Professor Gillian Wright has been the European Principal Investigator leading the nationally-funded European consortium of Institutes that developed MIRI for the James Webb Space Telescope, in partnership with NASA's Jet Propulsion Laboratory for more than 20 years. This has been a leadership role of considerable complexity requiring excellent scientific, management and interpersonal skills. Her team consists of more than 150 people based in ten European countries. The instrument, operating in the 5 to 28.- micron wavelength band on a large aperture cryogenic telescope provides a comprehensive suite of capabilities from imaging in nine photometric bands, coronagraphy, high precision time series measurements to both low and moderate resolution spectroscopy, has been successfully built and delivered to the JWST mission. Now launched and operating well,

with its significant advance in sensitivity and 50 times improvement in angular resolution, the performance of MIRI on JWST will be unsurpassed in imaging and spectroscopy at these wavelengths for the foreseeable future. It is already providing wonderful images, and detailed spectroscopy and will likely lead to unexpected results as well as to major advances in understanding

Professor Eva Grebel – 2022

Prof. Grebel has made outstanding contributions to the field of galaxy evolution, is one of the pioneers in the young field of “near-field cosmology”, and a true role model, mentor, and leader. Her discoveries and characterization of a new class of galaxies now known as “ultra-faint dwarf galaxies” and of a preferred distribution of dwarf satellite galaxies around the Andromeda galaxy, both support the scenario of dark matter dominated structure formation.

Similarly, important is her work on the assembly history of the Milky Way and the pioneering use of pulsating variable stars in order to uncover its three- dimensional structure. Her work is characterized by the combination of the latest available data and innovative analysis methods with strategic planning. Through her leadership in research and as one of the first full professors in astrophysics in Germany, Prof. Grebel has been teaching, mentoring, and inspiring an impressive number of students and young scientists alike.