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THE ROSSI PRIZE, TOP HIGH-ENERGY AWARD, GIVEN TO IXPE MISSION

The top prize in high-energy astrophysics has been awarded to two scientists and the Imaging X-ray Polarimetry Explorer (IXPE) team for the instrument and the revelations it is producing about the physics of neutron stars and black holes and their environments.

The High Energy Astrophysics Division (HEAD) of the American Astronomical Society (AAS) awards the Rossi Prize in recognition of significant contributions as well as recent and original work in high-energy astrophysics.

IXPE was launched into space on December 9, 2021. It is an observatory built to discover the secrets of some of the most extreme objects in the universe – the remnants of supernova explosions, powerful particle streams spit out by feeding back holes, and more. IXPE is a collaboration between NASA and the Italian Space agency.

This year's Rossi Prize names Martin Weisskopf (NASA Marshall Space Flight Center), Paolo Soffitta (National Institute for Astrophysics in Italy, or INAF), and the IXPE team. It says the Rossi Prize is being given "for their development of the Imaging X-ray Polarimetry Explorer whose novel measurements advance our understanding of particle acceleration and emission from astrophysical shocks, black holes and neutron stars."

"I am honored and excited to receive this Rossi Prize with my colleague Paolo Soffitta and the entire IXPE team. IXPE is a realization of decades of work and belief in the importance of X-ray polarization measurements for X-ray astronomy," said Weisskopf. "These measurements are vital for understanding how X-rays are produced by some of the most fascinating objects in the Universe --- neutron stars, stellar mass and supermassive black holes. IXPE, like all scientific leaps forward, has made significant measurements and discoveries, especially those that require important modifications to our pre-IXPE expectations.

"IXPE is the demonstration of how an idea pursued for decades has been transformed into a successful mission thanks to the collaboration between the United States and Italy," said Soffitta. "It's exciting and incredible to be the person receiving the Rossi Prize along with Martin Weisskopf, and on behalf of so many

people whose expertise and enthusiasm have made this breakthrough in astrophysics possible.”

The prize is in honor of Professor Bruno Rossi, an authority on cosmic ray physics and a pioneer in the field of X-ray astronomy. The Rossi Prize includes an engraved certificate and a \$1,500 award and a lecture given at the 245th meeting of the AAS, which will be held in National Harbor, Md, in January 2025.

Additional information on the Rossi Prize, including previous winners, can be found at:

<https://head.aas.org/rossi/rossi.prize.html>