



Contribution ID: 126

Type: **Oral**

The Gas Pixel Detectors for the Imaging X-ray Polarimetry Explorer

Thursday, 26 May 2022 18:30 (15 minutes)

On December 9th 2021, the Imaging X-ray Polarimetry Explorer (IXPE) was launched on a Falcon IX from Cape Canaveral into its equatorial, low-Earth orbit, where it began scientific observations on January 11th 2022. Equipped with three identical telescopes—each providing simultaneous polarimetric, spatial, spectroscopic and temporal information—IXPE will measure, for the first time in the soft X-ray band, the polarization of tens of celestial objects of different classes: supernova remnants, pulsars and pulsar wind nebulae, magnetars, active galactic nuclei and accreting black holes.

In this contribution I will describe the design and construction of the innovative polarization-sensitive gas detectors at the IXPE focal plane, with emphasis on the lesson learned through the development phase of the mission. In addition, I will report on the instrument commissioning and early experience in orbit, as well as the first scientific results.

Collaboration

IXPE

Primary author: MANFREDA, Alberto (Istituto Nazionale di Fisica Nucleare)

Presenter: MANFREDA, Alberto (Istituto Nazionale di Fisica Nucleare)

Session Classification: Detectors Techniques for Cosmology and Astroparticle Physics