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Supernova Rements & Pulsar Wind Nebulae come visti da IXPE

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With the launch of the NASA/ASI IXPE satellite, the first one devoted to X-ray polarimetry, a new observational windows has open for the study of X-ray emitting sources, both Galactic and Extra-Galactic. After 3 years of operations, several tens of sources have now been observed and their polarimetric properties have been measured, making IXPE one of the most successful missions of the last few years, as testified by the 2024 Rossi Prize. Among the many classes, particularly relevant are extended Galactic sources like Supernova Remnants, and Pulsar Wind Nebulae, which are known to be very efficient high-energy particle and cosmic rays accelerators. For the first time we are now able to observe the geometry of the magnetic field, and constrain the properties of magnetic turbulence. I will present the first 3-year of results by IXPE in the study of these systems, and I will show how relevant the latter have been to our understanding of the former.

Presenter: BUCCIANTINI, Niccolo' (Istituto Nazionale di Astrofisica (INAF))Session Classification: L'astrofisica delle alte energie: da Integral a CTAO (chair: P. Ubertini)