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## Il contributo di AGILE all'astrofisica delle alte energie

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“AGILE has been a unique and remarkably successful space mission of the Italian Space Agency (ASI), with mail contributions from INAF and INFN. Operating for nearly 17 years—from its launch on April 23, 2007, to its re-entry on February 14, 2024—AGILE made significant contributions to high-energy astrophysics and geophysics. Its wide field-of-view (2.5 rad) and rapid alert system enabled the detection of many unexpected phenomena, most notably the discovery of intense and rapid gamma-ray flares from the Crab Nebula on daily timescales—an achievement awarded with the 2012 Bruno Rossi Prize –and the discovery of the first evidence of hadronic cosmic-ray acceleration in Supernova Remnants.

In this presentation, I will review AGILE's most important scientific results, from its key role in the study of the cosmic-ray origin to the recent advances in the study of Gamma-Ray Bursts (GRBs), Fast Radio Bursts (FRBs) and in the search for electromagnetic counterparts of Gravitational Wave (GWs) and high-energy neutrino sources, all important contributions to multi-frequency and multi-messenger astrophysics.

AGILE demonstrated how a compact and fully Italian mission could achieve a top scientific impact and visibility at the international level. Although the satellite's in-orbit phase has ended after many years of operation (a world record for its class), its rich data archive remains open to the community and continues to support ongoing research with the potential of additional discoveries in the years to come.”

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**Session Classification:** L'astrofisica delle alte energie: da Integral a CTAO (chair: P. Ubertini)