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The DAMPE mission

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The dark matter particle explorer (DAMPE) was launched into space on Dec.17, 2015 to a 500 km dawn-to-dusk sun-synchronous orbit aiming at detecting high energy electron (gamma) as well as cosmic heavy ions up to 10 TeV and 1 PeV, respectively for understanding the mechanisms of particle acceleration in celestial sources and the propagation of cosmic rays in the galaxy, to probe the nature of dark matter, a form of matter necessary to account for gravitational effects observed in very large scale structures such as anomalies in the rotation of galaxies and the gravitational lensing of light by galaxy clusters that cannot be accounted for by the quantity of observed matter, and to study the high-energy behavior of gamma-ray bursts, pulsars, active galaxy nuclei and other transients, etc. After months' commissioning, DAMPE has been in the observational mode. This paper reports the status of its detectors and latest results collected so far which will be discussed in the presentation.

Biography

Jian W U has completed his PhD from the University of Science and Technology of China/ETHZ Switzerland and Post-doctoral studies from Syracuse University in the Department of Physics. Currently, he is a Professor at the Purple Mountain Observatory, Chinese Academy of Sciences. He has published more than 100 papers in reputed journals.

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