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## Measurement of the iron energy spectrum with DAMPE

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DAMPE is a space-based particle detector designed to study high-energy cosmic rays, including electrons, gamma rays, and atomic nuclei. Since its launch in December 2015, it has been operating smoothly for over nine years, recording more than 1.6 billion cosmic-ray particles. DAMPE data have already confirmed spectral breaks for light elements as a hardening break at a few hundred GeV/n and detected a softening at tens of TeV. Iron, the most abundant element with an atomic number greater than 20, plays a crucial role in understanding the universal properties of cosmic rays in our galaxy. With the largest acceptance among all currently operating space-based particle detectors and a long exposure time, DAMPE has a strong potential to extend the iron spectrum up to the PeV range. Results of the cosmic iron flux will be presented, discussing the evidence for spectral features and their statistical significance.

### Collaboration(s)

DAMPE

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