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Fermi LAT studies of cosmic-ray anisotropy at the 100 GeV scale

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The Fermi Large Area Telescope (LAT) is optimized for gamma-ray measurements, but most of the events it records are protons. Compared to ground-based air shower arrays, the LAT provides complementary capabilities regarding cosmic-ray anisotropy. It is sensitive in the ~100 GeV energy range and above, views the entire sky using a single instrument with no holes in exposure, and can efficiently discriminate protons from heavier nuclei as well as from leptons and gamma rays. Moreover, while ground-based instruments are only sensitive to the right ascension component of cosmic-ray anisotropy, the LAT is sensitive to all orientations of anisotropy. I will present a search for cosmic-ray proton anisotropy with eight years of LAT data, the largest all-sky cosmic-ray proton data set ever collected in this energy range (80 GeV to 10 TeV). I will also review recent LAT results on cosmic-ray electron and positron anisotropy.

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