

Abstract Submitted  
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**Measurement of the cosmic-ray proton spectrum with the Fermi Large Area Telescope** DAVID GREEN, Univ of Maryland-College Park, FERMI LAT AREA TELESCOPE COLLABORATION COLLABORATION — We present the measurement of the cosmic-ray proton spectrum between 54 GeV and 9.5 TeV using 7 years of Pass 8 flight data from the Fermi Large Area Telescope (LAT). We developed a dedicated proton event selection with an acceptance of  $0.25 \text{ m}^2 \text{ sr}$ . Our analysis yields a large dataset with low statistical uncertainty and low residual contamination for a spectral measurement. The systematic errors associated with the acceptance, energy measurement, GEANT4 Monte-Carlo simulations are an order of magnitude larger than the statistical uncertainty. The event selection and spectral measurement of the proton analysis create the opportunity for additional proton analyses with the LAT, such as a dedicated proton anisotropy search.

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