

Abstract Submitted
for the APR17 Meeting of
The American Physical Society

Possible Quasi-Periodic Gamma-ray Emission from Blazar PG 1553+113 DAVID THOMPSON, NASA/GSFC, SARA CUTINI, STEFANO CIPRINI, Agenzia Spaziale Italiana (ASI) Science Data Center, I-00133 Roma, Italy, STEFAN LARSSON, Department of Physics, KTH Royal Institute of Technology, Al- baNova, SE-106 91 Stockholm, Sweden, ANTONIO STAMERRA, INAF, Osservatorio Astronomico di Torino, I-10025 Pino Torinese (TO), Italy, FERMI LARGE AREA TELESCOPE COLLABORATION — We report an update on a possible gamma-ray and multiwavelength nearly periodic oscillation in an active galactic nucleus. Data from the Fermi Large Area Telescope exhibit an apparent quasi-periodicity in the gamma-ray flux ($E > 100$ MeV) from the GeV/TeV BL Lac object PG 1553+113. The indication of a 2.18 ± 0.08 year period gamma-ray cycle is strengthened by correlated oscillations observed in radio and optical fluxes, through data collected in the Owens Valley Radio Observatory, Tuorla, Katzman Automatic Imaging Telescope, and Catalina Sky Survey monitoring programs and Swift-UVOT. Further long-term multiwavelength monitoring of this blazar may discriminate among the possible explanations for this quasi-periodicity.

David Thompson
NASA/GSFC

Date submitted: 30 Sep 2016

Electronic form version 1.4