Contribution ID: **25** Type: **not specified**

Search and Characterization of Radio-quiet Gamma-ray Pulsars with Fermi-LAT

Wednesday, 20 June 2012 18:05 (25 minutes)

The Fermi Large Area Telescope (LAT) has opened a new era for pulsar astronomy. Besides improving our understanding of known pulsars and triggering the discovery of new radio pulsars, it has uncovered a whole population of radio-quiet gamma-ray pulsars. I will describe the techniques used to find such pulsars from gamma-ray data alone and review the results obtained so far with these techniques. I will present a study of the LAT sensitivity to pulsations and use it to constrain the overall pulsar population. I will show the capabilities of the LAT to time pulsars across glitches using gamma-ray data alone. Finally, I will present recent attempts to extend our search techniques to millisecond pulsars in binary systems, with special emphasis on the black widow candidate 2FGL J2339.6-0532.

Primary author: BELFIORE, andrea (UCSC-SCIPP INAF-IASF)

Presenter: BELFIORE, andrea (UCSC-SCIPP INAF-IASF)

Session Classification: The gamma-ray sky