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**GeV Gamma-ray Observations of Galaxy Clusters with the Fermi/LAT** KEITH BECHTOL, SLAC, FERMI LAT COLLABORATION — The Fermi Gamma Ray Space Telescope has steadily explored the gamma-ray sky since its launch on June 11, 2008. The Fermi Large Area Telescope (LAT) provides all-sky coverage in the energy range from 100 MeV to 300 GeV offering a new perspective of the high energy Universe. Recent radio observations of galaxy clusters motivate a search for populations of energetic particles confined by intercluster magnetic fields. Galaxy clusters could be the site of distinctive particle acceleration processes including acceleration along large scale structure formation shocks. Studies of how cosmic rays and magnetic fields interact with the intercluster medium will provide a better understanding of the pressure and energy budget of galaxy clusters. The previous gamma-ray space telescope, EGRET, placed upper limits on the non-thermal emission. We now present early results on galaxy clusters using data from the Fermi/LAT.

Keith Bechtol  
SLAC

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