

ATel draft for HB89 1749+701 and BZU J0742+5444

Important Note

The initial draft (very bottom) was for flaring of two sources. The first one (1749+701) did have a recent [ATEL #3171](#) so the new draft is only for the latter source (J0742+5444)

New draft just on flare of BZU J0742+5444

Fermi LAT detection of a GeV flare from BZU J0742+5444

Davide Donato (NASA/GSFC); on behalf of the Fermi Large Area Telescope Collaboration.

The Large Area Telescope (LAT), one of the two instruments on the Fermi Gamma-ray Space Telescope, has observed a bright gamma-ray flare from a source positionally consistent with the flat spectrum radio source, 87GB 073840.5+545138 = BZU J0742+5444 (RA: 07h42m39.8s, Dec: +54d44m25s, J2000, A. J. Beasley et al. 2002, ApJS, 141, 13) with $z=0.72$ (J. Halpern et al. 2003, AJ, 125, 572).

Preliminary analysis indicates that on February 26, 2011 the source was in a high state with a gamma-ray flux ($E>100\text{MeV}$) of $(1.2\pm0.3) \times 10^{-6} \text{ ph cm}^{-2} \text{ s}^{-1}$ (error is statistical only). This value represents an increase of a factor of ~ 20 with respect to the flux in the 1FGL catalog (Abdo et al. 2010, ApJS, 188, 405), which reports the average flux from August 2008 through June 2009.

Because Fermi operates in an all-sky scanning mode, regular gamma-ray monitoring of this source will continue. The Fermi LAT contact person for this source is Davide Donato (donato@milkyway.gsfc.nasa.gov).

The Fermi LAT is a pair conversion telescope designed to cover the energy band from 20 MeV to greater than 300 GeV. It is the product of an international collaboration between NASA and DOE in the U.S. and many scientific institutions across France, Italy, Japan and Sweden.

Initial draft on two sources... but 1749+701 was already recently reported ([ATEL 3171](#))

Fermi LAT detection of GeV flares from HB89 1749+701 and BZU J0742+5444

Davide Donato (NASA/GSFC), Teddy Cheung (NRL); on behalf of the Fermi Large Area Telescope Collaboration.

The Large Area Telescope (LAT), one of the two instruments on the Fermi Gamma-ray Space Telescope, has observed bright gamma-ray flares from two sources positionally consistent with the flat spectrum radio quasars HB89 1749+701 (RA: 17h48m32.8s, Dec: +70d05m51s, J2000, K.J. Johnston et al. 1995, AJ, 110, 880; $z=0.77$, P. A. Hughes et al. 1992, ApJ, 396, 469H) and BZU J0742+5444 (RA: 07h42m39.8s, Dec: +54d44m25s, J2000, A. J. Beasley et al. 2002, ApJS, 141, 13B; $z=0.72$, B. Punsly 1999, ApJ, 51, 141P).

Preliminary analysis indicates that on February 26, 2011 the two sources were in a high state with a gamma-ray flux ($E>100\text{MeV}$) of $(1.3\pm0.2) \times 10^{-6} \text{ ph cm}^{-2} \text{ s}^{-1}$ and $(1.2\pm0.3) \times 10^{-6} \text{ ph cm}^{-2} \text{ s}^{-1}$ (errors are statistical only), respectively. Those values represent an increase of a factor of ~ 50 and ~ 20 with respect to the source flux level reported in the 1FGL catalog (Abdo et al. 2010, ApJS, 188, 405), which reports the average flux from August 2008 through June 2009.

Because Fermi operates in an all-sky scanning mode, regular gamma-ray monitoring of this source will continue. The Fermi LAT contact people for this source is Davide Donato (donato@milkyway.gsfc.nasa.gov).

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