

ASTROPHYSICS SEMINAR

Wednesday, 19 October 2011 at 14:00

# Gamma-ray flares from the Crab-nebula: A new astrophysical puzzle

Rolf Buehler

Kavli/SLAC, Stanford University, USA

**Abstract.** The Large Area Telescope on board the Fermi Satellite observed the brightest gamma-ray flare detected to date on April 2011. The gamma-ray brightness of the nebula doubled within  $\sim 10$  hours reaching peak fluxes which are a factor 30 above the average nebula flux value. Surprisingly, simultaneous observations with the Chandra Satellite and the Keck observatory revealed no counterpart to the gamma-ray emission at lower wavelength. The observations give us a new view on the particle acceleration happening within the nebula and imply that the emission region is relativistically beamed towards us.

---

**Additional Information**

The seminars are given in the ISDC "Pavillon" building  
Address: ISDC Data Centre for Astrophysics, ch. d'Écogia 16, CH-1290 Versoix  
WWW: ISDC Seminars: <http://www.isdc.unige.ch/seminars>