



Département d'Astrophysique

Séminaires du DAp

Jeudi 07/06/2012, 11:00

Bat 713, salle de séminaires Galilée , CEA Saclay, Orme des Merisiers

P.KUMAR

The University of Texas, Austin, USA

RECENT ADVANCES IN OUR UNDERSTANDING OF ENIGMATIC GAMMA-RAY BURSTS

After a brief summary of key observational properties of gamma-ray bursts an overview of the recent progress in our understanding of these explosions will be provided. Data obtained by the Swift and Integral satellites has answered several long standing questions, and also added new puzzles. Swift has shed some light on the workings of the "central engine" in these bursts, and three years ago it discovered a burst at a redshift of 9.4 (which was announced last year) which is one of the most distant objects we know today (detection of a galaxy at $z \sim 10.3$ was reported in January last year but not confirmed spectroscopically). The Fermi satellite (launched in June 2008) has provided excellent data covering a very broad energy band --- 8 keV to ~ 300 GeV --- that has clarified some aspects of these bursts, and also added a few new mysteries.

Contact : -