



I N T E G R A L
SCIENCE DATA CENTRE

Centre attaché à l'Observatoire de Genève



UNIVERSITÉ DE GENÈVE

ASTROPHYSICS SEMINAR



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Gamma-ray bursts: clues from the spectra and variability of the prompt phase

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Abstract. I will discuss some present hot topics of Gamma Ray Bursts (GRB) related to their association with supernovae (SN), the recently found spectral correlations for long GRBs and the properties of hard GRB spectra. I will present the results of the spectral and temporal analysis of GRB/SN candidates and discuss them in comparison with the large BATSE GRBs population. This analysis seems to point out the possible presence of a significant number of underluminous, GRB 980425-like events whose nature is worth to be investigated. The BATSE bursts also allow to probe the recently found spectral correlations of GRBs. I will present and discuss the recent results which seems to indicate that the BATSE GRB population is consistent with such spectral correlations. Finally I will consider a newly found hard burst which could be interpreted in the framework of the standard model as representative of the transition between the photospheric to the internal shock dominated phase.

Additional Information

The seminars are given in the ISDC "Pavillon" building
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WWW: ISDC Seminars: <http://isdc.unige.ch/?Science+seminars>