

ΑΡΙΣΤΟΤΕΛΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΟΝΙΚΗΣ

ΤΜΗΜΑ ΦΥΣΙΚΗΣ

ΣΕΜΙΝΑΡΙΟ

ΤΟΜΕΑΣ ΑΣΤΡΟΦΥΣΙΚΗΣ, ΑΣΤΡΟΝΟΜΙΑΣ ΚΑΙ
ΜΗΧΑΝΙΚΗΣ

Θέμα: **"GRB: Crisis, Some New Correlations, Back to an Old Motif and Some Light Eventually (perhaps?)!"**

Ομιλητής: **Dr. Demosthenis Kazanas**
NASA Goddard Spaceflight Center,
Ακαδημία Αθηνών

Ημερομηνία: **Παρασκευή 8-3-2013**

Τόπος: **Εργαστήριο Αστρονομίας, ΑΠΘ**

Ώρα: **12:00**

Περίληψη:

The GRB story will be outlined briefly from the perspective of the presenter, outlining the revolution brought by the detection of GRB afterglows and the conundrum of their light curves born by the more synoptic Swift observations. It will be argued that despite the apparent disassociation between the prompt and afterglow stages of GRB, there are indications, in the form of correlations between their properties, of an underlying physics that imply a unity of these two stages. The fundamentals of a model developed by the presenter and A. Mastichiadis will be reviewed along with some simple calculations based on this model that appear to be able to resolve the afterglow light curve conundrum. Finally, a well defined corollary of this model and its (rather striking) agreement with observations will be presented and discussed.