



Irfu
Institut de recherche
sur les lois fondamentales
de l'Univers

Séminaire
SPP

Lundi 12/09/2016, 11h00

CEA-Saclay Bât. 141, salle André Berthelot

Gamma-Ray Bursts

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Gamma-ray bursts (GRBs) are short but powerful flashes of gamma-rays emitted at cosmological distance. They are followed by a rapidly fading afterglow observed from the gamma-ray to the radio range. GRBs are associated to ultra-relativistic jets emitted by a compact stellar-mass source (black hole or magnetar), formed after the gravitational collapse of a massive star or the merger of two compact objects. I will summarize the most recent observations of gamma-ray bursts and their afterglows, with a focus on their high-energy emission as described by the Fermi satellite, and discuss our current physical understanding of these extreme phenomena. Finally I will also discuss future challenges in GRB studies, especially in the context of the emerging multi-messenger astronomy.

Le café sera servi 10 minutes avant.

NB : La présentation d'une pièce d'identité est exigée à l'entrée du centre. Tous les auditeurs extérieurs sont priés de prévenir à l'avance Martine Oger, tél. 01 69 08 23 50, e-mail : martine.oger@cea.fr. (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).