



Séminaire du Laboratoire de l'Accélérateur Linéaire

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The Hard X-ray Modulation Telescope mission

The Hard X-ray Modulation Telescope (HXMT) is the first planned Chinese space telescope mission. This telescope covers the energy range from 1 keV to 250 keV with both high time resolution and energy resolution. It's expected through an all-sky survey and a series of deep scans on selected small regions various types of active galactic nucleus will be detected. X-ray transients will be monitored and interesting short scale time-varying phenomena of X-ray objects will be studied. The satellite and payloads systems have entered the flight model phase and the telescope is scheduled to launch around 2016. Unlike other imagers in X-ray astronomy, detectors on-board HXMT are position-insensitive. Images are reconstructed from X-ray photon events offline by solving a time-dependent spatial-variant convolution equation, where accurate background estimation plays a vital role. Currently we use a set of simple triggers, mainly relying upon the responses of anti-coincident detectors, to discriminate signals from background events. Provided that additional information e.g., pulse width given by the readout electronics, instantaneous attitude of the aircraft, particle events from the space environmental monitor, etc., are available, we expect that there would be more comprehensive approaches to estimate the background.

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Thé et café seront servis 5 mn avant le séminaire



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