

Institut de recherche sur les lois fondamentales de l'univers
SÉMINAIRE

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@LIEU

High Resolution CdTe Detectors for fast Solar
Astrophysics

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The demand for high resolution x-ray optics (a few arcseconds or better) in the areas of astrophysics and solar science is driving the development of complementary high spatial resolution pixelated detectors. These detectors should have small pixels (≈ 250 microns at typical focal lengths) to adequately oversample the optics point spread function and an energy response (≈ 3 to 100 keV) matched to that of the optics. An important additional consideration for solar observations is the capability to process the very high incoming photon fluxes ($\approx 10,000$ counts/s) present during solar flares.

We will explain the needs and requirements of the Focusing Optics X-ray Solar Imager (FOXSI) telescope, \hat{A} a proposed NASA Small Explorer spacecraft mission. The aim of this solar observatory is to investigate impulsive hard x-ray emission from the Sun to study the acceleration processes in solar flares and other eruptive phenomena, and to study the high-temperature plasmas of the solar corona. We also describe the development program for FOXSI, which has included two sounding rocket flights and one balloon flight, with an upcoming sounding rocket flight in 2018.

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Le cafe sera servi 10 minutes avant

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