

SÉMINAIRE DE PHYSIQUE CORPUSCULAIRE

SUJET: Compton-Pair Production Space Telescope: Extending Fermi-LAT

Discoveries in MeV Gamma-Ray Astronomy

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RÉSUMÉ:

The gamma-ray energy range from several hundred keV to a hundred MeV has remained largely unexplored since the observations by instruments on the Compton Gamma-Ray Observatory (1991- 2000) and on INTEGRAL (since 2002). This energy range is particularly challenging because it is firmly in the Compton-dominated regime where the interaction cross section is minimized. Accurate measurements are critical for answering a broad range of astrophysical questions. We are developing a MIDEX-scale wide-aperture discovery mission, Compton-Pair Production Space Telescope (ComPair), to investigate the energy range from 200 keV to >500 MeV with good energy and angular resolution and with sensitivity approaching a factor of 20-50 better than previous measurements. This instrument will be capable of measuring both Compton-scattering events at lower energies and pair-production events at higher energies. ComPair will build on the heritage of successful space missions including Fermi-LAT, AGILE, AMS and PAMELA.

INFORMATION: http://dpnc.unige.ch/seminaire/annonce.html

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