



SÉMINAIRE DE PHYSIQUE CORPUSCULAIRE

SUJET: **The Status of the DAMPE mission and the perspective of future astroparticle space missions**

PAR: **Prof. Xin WU**
Université de Genève, DPNC

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RÉSUMÉ:

DAMPE (DARk Matter Particle Explorer), a satellite mission of the Chinese Academy of Sciences dedicated to high energy particle detections in space, was successfully launched in December 17 2015. The main scientific objective of DAMPE is to detect electrons and photons in the range of 5 GeV-10 TeV with unprecedented energy resolution in order to identify possible Dark Matter signatures. It will also measure the flux of nuclei up to 100 TeV with excellent energy resolution, which will bring new insights to the origin and propagation high energy cosmic rays. With its excellent photon detection capability, the DAMPE mission is also well placed to make strong contributions to high energy gamma astronomy.

In short DAMPE opens up a new observational window of particles in space in the multi-TeV range. In this talk, after a general introduction of astroparticle physics, the science goals and key performance features of DAMPE will be described. Calibration results from several beam test campaigns will be presented. Highlights of the initial in-orbit calibration and performance will be shown. Finally, perspectives of future astroparticle space missions will be discussed.

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

ORGANISATEURS: Sergio.Gonzalez@unige.ch & Domenico.Dellavolpe@unige.ch