



Contribution ID: 290

Type: **Talk in a parallel session**

The Compton Spectrometer and Imager mission

Thursday, 11 July 2024 17:00 (30 minutes)

The Compton Spectrometer and Imager (COSI) is a NASA Small Explorer (SMEX) satellite mission planned to fly in 2027. It has the participation of institutions in the US, Europe and Asia and aims at the construction of a gamma ray telescope for observations in the 0.2-5 MeV energy range. It will cover the full sky with a 120×120 degrees² field of view, excellent energy resolution, imaging capability and sensitivity to polarization. It consists of an array of germanium strips detectors cooled to cryogenic temperatures with millimeter position resolution for gamma-ray interactions, surrounded by an active BGO shield to reduce background contamination. Goals of COSI are: the study of the electron-positron 511 keV annihilation emission in the Galaxy, mapping the emission from galactic element formation, exploring the polarization in the gamma rays and the detection of transient sources in multimessenger campaigns. In this work we present the mission, its scientific goals and its design.

Primary author: FENU, Francesco (Agenzia Spaziale Italiana)

Presenter: FENU, Francesco (Agenzia Spaziale Italiana)

Session Classification: Future innovations in gamma-ray astronomy

Track Classification: High energy (HE): Future innovations in gamma-ray astronomy