ICRC 2025 - The Astroparticle Physics Conference



Contribution ID: 1248 Type: Talk

First Results from the RadMap Telescope

Tuesday 22 July 2025 17:35 (15 minutes)

The RadMap Telescope is a compact instrument designed to characterize the primary spectrum of cosmic-ray nuclei and the secondary radiation field created by their interaction with the shielding of spacecraft. Its main purpose is to precisely monitor the radiation exposure of astronauts, and it is the first instrument with a compact form factor that can measure both the charge and energy of individual nuclei with energies up to several GeV per nucleon. This capability is enabled by a tracking calorimeter made from scintillating-plastic fibers, which can record the energy-loss profile of particles in three dimensions and with nearly omnidirectional sensitivity. We present first results from the RadMap Telescope's first orbital deployment on the International Space Station between April 2023 and January 2024.

Collaboration(s)

Authors: LOSEKAMM, Martin Jan (Technische Universitaet Muenchen (DE)); Dr BERGER, Thomas (German Aerospace Center); HINDERBERGER, Peter (Technical University of Munich); MEYER-HETLING, Luise Eva Sophie (Technical University of Munich); Prof. PAUL, Stephan (Technische Universitaet Muenchen (DE)); Dr POSCHL, Thomas (CERN)

Presenter: LOSEKAMM, Martin Jan (Technische Universitaet Muenchen (DE))

Session Classification: CRD

Track Classification: Cosmic-Ray Direct & Acceleration