



Calibration of the new Next Generation Radiation Monitors for ESA

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Current and future activities in Space Weather domain utilize large sets of data from measurements conducted by numerous instruments. Thus a predictive power for its forecast as well as a deep understanding of underlying processes and links between them heavily rely on the data quality. The Next Generation Radiation Monitor (NGRM) is a new instrument dedicated for space measurements of radiation environment of electrons, protons and heavy ions. NGRM covers energy ranges from 100 keV to 7 MeV for electrons and from 2 MeV to more than 200 MeV for protons. It was already realized at the development stage of its precursor SREM (ESA Standard Radiation Environment Monitor) that only careful calibrations on-ground will assure full understanding of instrument performance in space and proper unfolding of the raw data to create reliable particle fluxes and spectra in space. We present the NGRM instrument calibration procedure and describe particle tests facilities and methods utilized and applied during characterization process. New data from calibration tests of the first NGRM flight model units will be presented and discussed together with numerical modeling results.