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First Results from Medipix in Space

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A talk was given at the last VCI demonstrating the capabilities of the pixel detector technology developed by the CERN-based Medipix2 Collaboration and outlining the plans to develop dosimeters and radiation area monitors for use in characterizing space radiation. In the interim, a number of devices have been sent to the International Space Station and are being used to obtain operating these devices in that environment. This has been coupled with an extensive ground-based accelerator evaluation of the response of these detectors to incident charged particles including heavy ions in order to evaluate both the effects of the ionization of such large quantities of electron-hole pairs in initially fully depleted Si sensors, as well as the impact on the front end electronics within each pixel in such situations. The result of these investigations and a preliminary report on the initial experience in space will be presented along with an overview of the future plans for deployments in space and the desirable characteristics for the next generation of these detectors from the Medipix3 Collaboration.

quote your primary experiment

Medipix2 & Medipix3

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