Radiation field characterization with the MoEDAL Timepix network

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A network of 5 Timepix (active pixel) detectors was installed in MoEDAL and continuously taking data for real-time characterization of the radiation field. In 2018, two Timepix3 detectors were added to the network. The presentation describes novel analysis methods developed for Timepix data analysis in MoEDAL and their application to the MoEDAL data. The presented results include measured (thermal and fast) neutron fluxes, the stopping power distribution(s) and directions of ionizing particles at different positions in MoEDAL. We show first data from the Timepix3 devices and discuss their advantages compared to Timepix.

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