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【355】Irradiation of ATLAS ITk Pixel Data Transmission Components at the Bern Cyclotron

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The High Luminosity LHC will increase the average number of proton-proton interactions per bunch crossing to 200. Consequently, material closest to the interaction points will receive a TID over one order of magnitude larger than seen previously. The ATLAS Inner Tracker (ITk) Pixel upgrade will be particularly affected by this increase in radiation dose. The impact of radiation damage on the ITk Pixel data transmission chain can be tested using the Bern medical cyclotron, an 18 MeV proton accelerator. This talk summarises the radiation hardness studies of the components used for this data transmission chain performed at the Bern cyclotron.

Primary author: O'NEILL, Aaron Paul (Universitaet Bern (CH))

Presenter: O'NEILL, Aaron Paul (Universitaet Bern (CH))

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