2nd Allpix Squared User Workshop



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Detection efficiency simulations of the ATLAS-TPX detector

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The ATLAS-TPX detector is a telescope made of two Timepix ASICs with silicon sensors facing each other. A network of 16 such detectors was installed in ATLAS during Run 2 (2015-2018) for characterizing the radiation environment. In order to measure charged particle fluences several effects had to be assessed, such as the performance of tracking algorithms, the impact of delta-rays or the background caused by gamma particles. For this purpose, a detection efficiency study has been performed using the Allpix2 framework.

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