

11th Beam Telescopes and Test Beams Workshop



Contribution ID: 52

Type: **Tutorial**

Hands-On: Silicon Detector Monte Carlo Simulations with Allpix Squared

Tuesday, 18 April 2023 17:00 (2 hours)

Scope of the tutorial

The goal of this interactive tutorial is to understand the usage of basic functionalities of the Allpix Squared simulation framework, and methods to extract some of the relevant quantities for sensor studies. Participants are encouraged to follow along on their own computers. A task and instructions will be provided and walked through, covering the basic concepts of configuring a simulation and a detector geometry, and extracting and interpreting histograms. We will also touch upon incorporating detailed results from TCAD into the simulations.

Some prior knowledge on the framework is helpful, but not required.

Preparation

Please install the latest release version of Allpix Squared on your computer, or make sure you have access to a working version online before the tutorial.

Detailed instructions for installation can be found in the manual or on the website (<https://cern.ch/allpix-squared>) and GitLab (<https://gitlab.cern.ch/allpix-squared/allpix-squared>)

Primary authors: WENNLÖF, Håkan (Deutsches Elektronen-Synchrotron (DE)); DEL RIO VIERA, Manuel Alejandro (Deutsches Elektronen-Synchrotron (DE)); RUIZ DAZA, Sara (Deutsches Elektronen-Synchrotron (DE)); LACHNIT, Stephan (Deutsches Elektronen-Synchrotron (DE))

Presenters: WENNLÖF, Håkan (Deutsches Elektronen-Synchrotron (DE)); DEL RIO VIERA, Manuel Alejandro (Deutsches Elektronen-Synchrotron (DE)); RUIZ DAZA, Sara (Deutsches Elektronen-Synchrotron (DE)); LACHNIT, Stephan (Deutsches Elektronen-Synchrotron (DE))

Session Classification: Hands-On Tutorial