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Tutorial: Silicon Detector Monte Carlo Simulations with Allpix Squared

Wednesday 21 May 2025 17:00 (2 hours)

This interactive workshop will introduce participants to the fundamental functionalities of the Allpix Squared simulation framework, guiding them through key steps in sensor simulation and data analysis. Attendees will learn how to configure simulations, define detector geometries, and extract relevant quantities through histograms. Additionally, the participants will be able to learn how to integrate TCAD simulation results to enhance detector modeling.

The workshop will be hands-on, with step-by-step instructions provided. A Q&A session will allow for discussions on specific topics and troubleshooting.

Preparations:
Participants are encouraged to follow along on their own computers. Please install the latest release version of Allpix Squared on your computer, or ensure you can access a working version online before the tutorial. A virtual machine can be provided for those unable to install the software.

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

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Session Classification: Hands-on tutorials