Interview with Juncheng E on the photon experiment simulation environment SIMEX (with DEMO)

SIMEX is a unique simulation framework that uses some of most advanced simulation tools and integrates them to mimic an entire light source beamline. It is a flexible, modular system that can be tailored for use at potentially any advanced light source. We interviewed Juncheng E (European X-FEL / PaNOSC) on the use of SIMEX for photon experiment simulations.

RICERCA DI BASE

The PaNOSC project (http://panosc.eu/) has been developing the Virtual Neutron and X-ray Laboratory (ViNYL), which will offer services for simulation and modelling of neutron and photon sources, beamlines and experimental instrument, as well as start-to-end simulations to describe entire experiments at photon and neutron facilities.

Juncheng E, scientist for photon experiment simulations at European XFEL, is one of the PaNOSC contributors involved in the development of SIMEX, a uniform API written in python to help users organize their start-to-end simulations for photon and XFEL experiments.

We interviewed him to have an overview of the tools currently available for such simulations, and to present some examples of the use of SIMEX.

In this respect, Juncheng showcased two demos related to serial crystallography and single-particle imaging experiments' simulations, and introduced the developments

envisaged in the future.

WATCH THE INTERVIEW HERE: https://youtu.be/Ei5DtrC-4BI

Additional resources:
SimEx github repository - SimEx source code: https://github.com/PaNOSC-ViNYL/SimEx
SimEx jupyter notebook examples https://github.com/PaNOSC-ViNYL/SimEx-notebooks

Learn more on PaNOSC simulation services: https://www.panosc.eu/services/data-analysis-simulation-data-system/

Parole chiave

Experiment simulations | Photon sources | Free electron lasers | laser source | PaNOSC | EOSC

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Progetti correlati

PROGETTO

Photon and Neutron Open Science Cloud

PaNOSC

8 Settembre 2023

Articoli correlati

PROGRESSI SCIENTIFICI

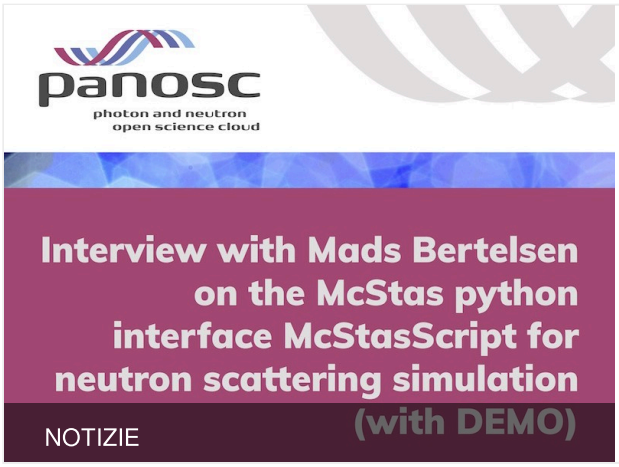
Watch the interview with Erik Knudsen on the McStas python interface McStasScript for X-ray telescope simulations (with DEMO).

17 Marzo 2021

NUOVI PRODOTTI E TECNOLOGIE

Interview with Ibrahim Dawod on the use of SimEx and Gromacs for bioimaging theoretical simulations

9 Marzo 2021



NUOVI PRODOTTI E TECNOLOGIE

Interview with Mads Bertelsen on performing McStas simulations with McStasScript (with DEMO)

6 Gennaio 2021

Ultimo aggiornamento: 23 Febbraio 2021

Permalink: https://cordis.europa.eu/article/id/429210-interview-with-juncheng-e-on-the-photon-experiment-simulation-environment-simex-with-demo/it