Contribution ID : **26**   Type : **not specified**

From prototypes to large scale detectors with Monte Carlo simulations

Thursday, 15 June 2023 09:15 (60)

Current and future experiments in high-energy physics rely on advanced simulation software that is key to the interpretation of physics measurements, as well as the design and performance of new detectors. In order to be able to produce all the necessary simulated samples, new simulation techniques and software technologies are needed, also requiring careful evaluation already at prototype level. In this talk, I will present Gaussino - a new simulation experiment-independent framework that provides generic core components to build a complete simulation application: generation, detector simulation, geometry, monitoring, saving persistent simulated data, as well as interfaces to various fast simulations and machine learning libraries. I will also show how Gaussino can be used to explore new detector ideas, and then seamlessly integrated in experiment's production-ready simulation setup developed within the scope of the same simulation framework.

Presenter(s) :   MAZUREK, Michał (NCBJ)