Seminarium Szkoły Doktorskiej NCBJ

Thursday, 28th April, 9:00
https://www.gotomeet.me/NCBJmeetings/phd-seminar

Speaker:
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Title:
Fast simulation interface and custom datasets in Gaussino

Abstract:
Monte Carlo simulations are key to the design and commissioning of new detectors as well as the interpretation of physics measurements. A new version of the LHCb Gauss simulation framework has been developed to better accommodate new simulation techniques and software technologies to produce the necessary samples required for the Run 3 physics program of the LHCb experiment. It provides the LHCb-specific functionality while the generic simulation infrastructure has been encapsulated in an experiment-independent framework, Gaussino. In this talk, I am going to present the fast simulation interface, the latest feature in Gaussino developed to interact with Geant4 to replace its detailed description of physics processes with fast simulation models. I will also present how the built-in mechanism that handles an additional geometry at configuration time can be used to produce custom datasets and, in particular, training and validation datasets for fast simulation models.