



Contribution ID: 10

Type: Oral

Modern Particle Physics event generation with WHIZARD

Monday, 1 September 2014 16:35 (25 minutes)

We describe the multi-purpose Monte-Carlo event generator WHIZARD for the simulation of high-energy particle physics experiments. Besides the presentation of the general features of the program like SM physics, BSM physics, and QCD effects, special emphasis will be given to the support of the most accurate simulation of the collider environments at hadron colliders and especially at future linear lepton colliders. On the more technical side, the very recent code refactoring towards a completely object-oriented software package to improve maintainability, flexibility and code development will be discussed. Finally, we present ongoing work and future plans regarding higher-order corrections, more general model support including the setup to search for new physics in vector boson scattering at the LHC, as well as several lines of performance improvement.

Primary author: REUTER, juergen (DESY Hamburg, Germany)

Co-authors: CHOKOUFE, Bijan (DESY); WEISS, Christian (University of Siegen); Dr BACH, Fabian (DESY); SEKULLA, Marco (University of Siegen); Prof. OHL, Thorsten (University of Wuerzburg); Prof. KILIAN, Wolfgang (University of Siegen)

Presenter: REUTER, juergen (DESY Hamburg, Germany)

Session Classification: Computations in Theoretical Physics: Techniques and Methods

Track Classification: Computations in Theoretical Physics: Techniques and Methods