Particle Physics Challenges



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Combining WHIZARD and Pythia 8

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WHIZARD is a multi-purpose event generator for hadron and lepton colliders. Support for lepton beam spectra (CIRCE1 and CIRCE2), polarization, initial-state radiated photons and the equivalent-photon approximation make WHIZARD suitable for lepton-collider physics simulations. We have added support for Pythia 8 on an event-per-event basis, enabling the transformation from the hard process to fully showered and hadronized events while accounting for resonances and spin correlations. We compare simulated data using the new interface to results from the standard PYTHIA6 interface and to available e^+e^- data.

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