Contribution ID: **296** Type: **Parallel Talk**

Multiparticle SUSY simulations at LHC & ILC: Off-Shell effects, interferences and radiative corrections

Friday 27 July 2007 15:20 (20 minutes)

The interesting but difficult phenomenology of supersymmetric models at the LHC & ILC demands a corresponding complexity and maturity from simulation tools. This includes multi-particle final states, reducible and irreducible backgrounds, spin correlations, real emission of photons and gluons, virtual corrections etc. Most of these topics are included
in the multi-particle Monte Carlo (MC) Event generators Madgraph, Whizard and Sherpa. A comparison of these codes is shown, with a special focus on the new release of Whizard/O'Mega. I show examples for the necessity of considering full matrix elements with all off-shell effects and interferences for multi-particle final states in supersymmetric models and give a status report on ongoing projects for simulations of SUSY processes at the LHC with these codes, including all of the abovementioned corrections.

Author: Prof. REUTER, Juergen (University of Freiburg)

Presenter: Prof. REUTER, Juergen (University of Freiburg)

Session Classification: Colliders - Susy Phenomenology 3 (Theory)

Track Classification: Colliders - Susy Phenomenology