DESY Seminar

Tuesday, 06.05.2008, 17h

DESY Hörsaal

Precision predictions for SUSY and GUT processes at hadron colliders

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Particle physics beyond the Standard Model (SM), as proposed by Supersymmetry (SUSY) or Grand Unified Theories (GUTs), is often associated with new heavy particles, that decay into SM particles and missing transverse energy. Their discovery at hadron colliders therefore requires a precise knowledge of their absolute cross sections close to the production threshold as well of their transverse-momentum distributions. The Monte Carlo generators currently in use must thus be improved by fixed-order QCD corrections, which may either be resummed analytically or matched to parton showers. We discuss in particular the cases of slepton and Z' production in typical SUSY and GUT models.

- **Tea and cookies will be served at 16.45h in the lobby**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**