Herwig++/KA activities

Stefan Gieseke

KIT

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Stefan Gieseke · Terascale MC meeting KA · 4/12/2009

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- Many SM hard processes available. LH files.
- BSM physics included. BSM cascades with spin correlations. 3-body. Finite width effects.
- ▶ New parton shower working in IS, FS, *t*-decays.

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- ► ME corrections in $e^+e^- \rightarrow q\bar{q}g$, DY, h^0 production, *t*-decay. *W*, Z^0 -decay.
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- Cluster Hadronization.
- Much improved hadronic decayers w spin correlations, photon radiation. Finite width effects.
- MPI model for Underlying Event simulation (with soft component).

Research topics YIN Monte Carlo Development KA

Research within Herwig collaboration

- Development of a Parton shower based on Catani–Seymour dipoles.
- Matching Dipole showers with NLO calculations.
- Colour Coherence?
- ▶ Beyond the large *N*^{*c*} limit?
- Multiple partonic interaction model for the underlying event.
- Soft interactions.
- Non-perturbative models.