Monte Carlo issues

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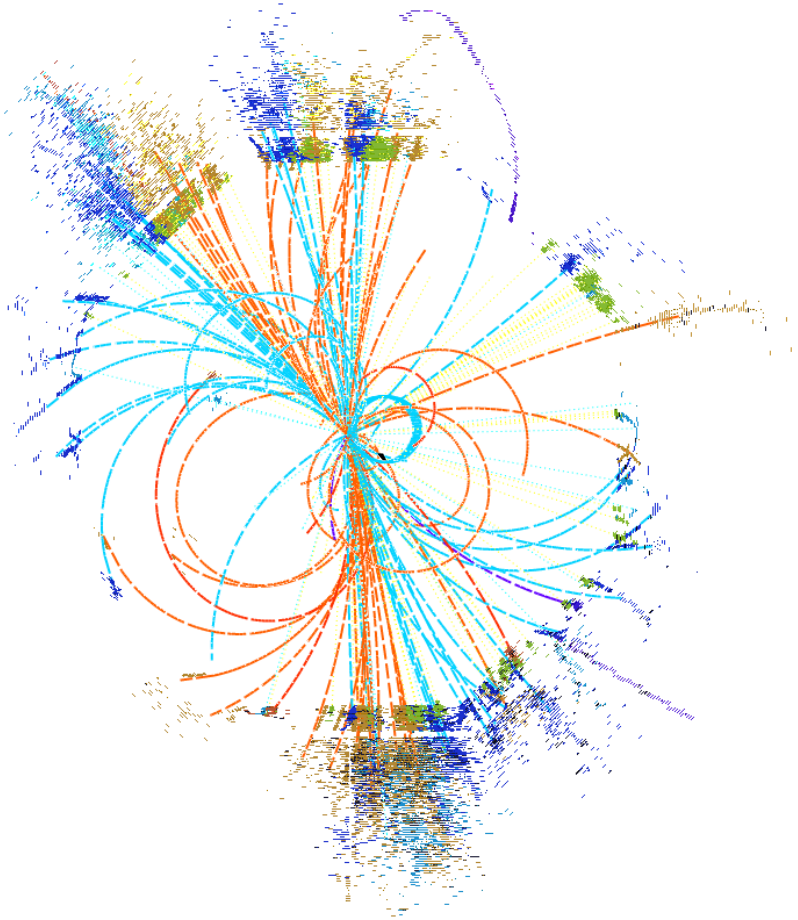

CLICdp WG Analysis meeting, CERN, 11/06/2014

QCD showering

• Final state QCD showering simulated using PYTHIA, no decent shower matching algorithm for WHIZARD 1.95

• For the DBD production gluon propagators were switched off (by setting $\alpha_s = 1 \cdot 10^{-6}$) to avoid double counting

• Last week I discovered that this was never done for WHIZARD generations using DIRAC

• Should only affect samples with at least 4 quarks in the final state
→ For many analyses irrelevant

Examples:

Process:	**σ(normal α_s) [fb]**	**σ($\alpha_s = 1E^{-6}$) [fb]**
$e^+e^- \to q\bar{q}$	3580	3580
$e^+e^- \to qq\nu\nu$	1320	1320
$e^+e^- \to qqqq$	592	548

→ Still investigating the full impact