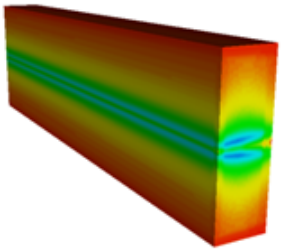

Contribution ID: **31** Type: **not specified**

Overview of FLUKA Energy Deposition and Design Studies for the LHC

Wednesday, 5 September 2007 09:00 (30 minutes)

In order to assess the energy deposition in sensitive LHC components,
extensive simulations were performed with the Monte Carlo cascade code FLUKA.
In many cases specialized solutions needed to be found, challenging in
several aspects, i.e., from the calculation as well as from the design
point-of-view.
Depending on the problem, detailed geometrical implementations, an accurate
consideration of magnetic fields, tracking of particles over hundreds of meters,
grazing angles and special biasing need to be considered.
This presentation gives a brief overview over the performed calculations,
points out important input- and output parameters and the respective assumptions
in the simulation as well as tries giving an overview of related uncertainties,
the latter being of statistical and systematic nature.
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Summary

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Session Classification: Session 5: Codes and simulations results

Track Classification: Overview of FLUKA Energy Deposition and Design Studies for the LHC