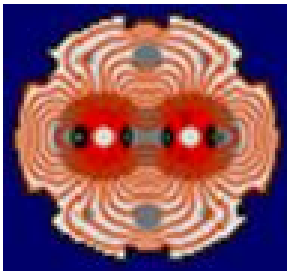

Contribution ID: **25** Type: **oral**

Damage Levels: Comparison of experiment and simulation

Friday, 21 January 2005 11:00 (15 minutes)

The design of protection elements is based on assumptions on damage levels, which are in general derived from computer simulations. A dedicatedexperiment was carried out to cross-check the extracted from the SPS in TT40, deliberate damage of material was done in a controlled way. A simple geometry was chosen for the high-Z target comprising several typical materials that are used in the LHC, such as stainless steel and copper. Results of the simulations are presented and compared with experiments.
Simulation results for the damage of a beam pipe in TT40 during an accident with the high intensity extraction are compared with observations. An outlook of what is required to predict beam induced damage levels in the LHC with confidence is given.

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Session Classification: Session 8 - Machine Protection Issues affecting Beam Commissioning

Track Classification: Machine Protection Issues affecting Beam Commissioning