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Review of critical radiation areas for LHC Electronics and mitigation actions. Radiation monitoring and first results

Wednesday, 27 January 2010 17:00 (30 minutes)

This presentation aims for an update of the radiation levels in the critical LHC areas, both based on updated FLUKA simulations as well as on early measurements. Furthermore, a detailed analysis of the respective particle energy spectra is given and put in contrast to present and possible future radiation sensitivities. The radiation monitoring improvements as performed during the 2009 shutdown are illustrated and conclusions for the actual impact on LHC operation and the measured shielding effectiveness are presented wherever available. Based on this, the 2008/2009 applied mitigation actions will be preliminary evaluated together with additionally foreseen short- and medium term measures.

Summary

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