

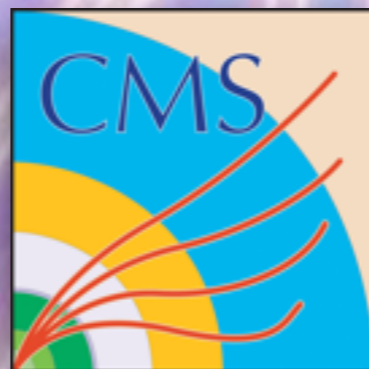
# Post Run 2 Workshop on Radiation Effects in the LHC Experiments

With focus on operation and performance of inner detector systems

11-12 Feb 2019 at CERN: [indico.cern.ch/event/769192](https://indico.cern.ch/event/769192)

Sessions on: sensor measurements & simulations; radiation background simulation & benchmarking; effects on electronics/optoelectronics

Organising Committee: E. Butz (KIT), M. van Beuzekom (Nikhef), M. Bomben (LPNHE), P. Collins (CERN), A. de Cosa (Zurich), I. Dawson (Sheffield), S. Mallows (KIT), M. Moll (CERN), A. Mucha (AGH UST), B. Nachman (LBNL), D. Robinson (Cambridge), A. Rozanov (CPPM-IN2P3-CNRS), J. Sonneveld (Hamburg)



# Radiation background simulation and benchmarking

09:00	<b>Introduction</b> 6-2-024 - BE Auditorium Meyrin, CERN	<i>Ian Dawson</i> 09:00 - 09:10
	<b>Radiation damage simulation and modelling in FLUKA</b> 6-2-024 - BE Auditorium Meyrin, CERN	<i>Vasilis Vlachoudis</i> 09:10 - 09:30
	<b>Radiation background simulation capabilities of Geant4</b> 6-2-024 - BE Auditorium Meyrin, CERN	<i>Prof. Vladimír Ivantchenko</i> 09:30 - 09:50
10:00	<b>Event generators for simulating radiation backgrounds</b> 6-2-024 - BE Auditorium Meyrin, CERN	<i>Deepak Kar</i> 09:50 - 10:10
	<b>On the uncertainties of silicon hardness factors</b> 6-2-024 - BE Auditorium Meyrin, CERN	<i>Mika Huhtinen</i> 10:10 - 10:35
	<b>Coffee break</b> 6-2-024 - BE Auditorium Meyrin, CERN	10:35 - 11:00
11:00	<b>ATLAS simulations, predictions, comparison with data</b> 6-2-024 - BE Auditorium Meyrin, CERN	<i>Sven Menke</i> 11:00 - 11:20
	<b>CMS simulations, predictions, comparison with data</b> 6-2-024 - BE Auditorium Meyrin, CERN	<i>Sophie Mallows</i> 11:20 - 11:40
	<b>LHCb simulations, predictions, comparison with data</b> 6-2-024 - BE Auditorium Meyrin, CERN	<i>Agnieszka Mucha et al.</i> 11:40 - 12:00
12:00	<b>ALICE simulations, predictions, comparisons with data</b> 6-2-024 - BE Auditorium Meyrin, CERN	<i>Antonello Di Mauro</i> 12:00 - 12:20
	<b>Discussion</b> 6-2-024 - BE Auditorium Meyrin, CERN	<i>All</i> 12:20 - 12:35
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All experiments  
use FLUKA,  
ATLAS uses  
also Geant4

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**ATLAS uses  
PYTHIA8; CMS  
and LHCb use  
DPMJET**

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All experiments  
using RD50  
hardness factors

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Reports from  
experiments