

Radiation effects at the LHC experiments and impact on operation and performance

Report of Contributions

Contribution ID: 1

Type: **not specified**

Registration

Monday 23 April 2018 08:30 (30 minutes)

Contribution ID: 2

Type: **not specified**

Workshop welcome & goals

Monday 23 April 2018 09:00 (10 minutes)

Presenter: DAWSON, Ian (University of Sheffield (GB))

Contribution ID: 3

Type: **not specified**

Introduction

Tuesday 24 April 2018 09:00 (10 minutes)

Presenters: MALLOWS, Sophie (KIT - Karlsruhe Institute of Technology (DE)); DAWSON, Ian (University of Sheffield (GB)); MUCHA, Agnieszka (UST, FPACS, CERN)

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: 4

Type: **not specified**

ATLAS simulation overview

Tuesday 24 April 2018 09:10 (25 minutes)

20 min talk + 5 min discussion

Presenter: MIYAGAWA, Paul (University of Sheffield (GB))

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: 5

Type: **not specified**

CMS simulation overview

Tuesday 24 April 2018 09:35 (25 minutes)

20 min talk + 5 min discussion

Presenter: MALLOWS, Sophie (KIT - Karlsruhe Institute of Technology (DE))

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: 6

Type: **not specified**

LHCb simulation overview

Tuesday 24 April 2018 10:00 (25 minutes)

20 min talk + 5 min discussion

Presenter: SZUMLAK, Tomasz (AGH University of Science and Technology (PL))

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: 7

Type: **not specified**

Recent developments FLUKA & DPMJET

15 min talk + 5 min discussion

Presenter: TBC

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: 8

Type: **not specified**

ATLAS radiation background studies using GEANT4 & GRID

Tuesday 24 April 2018 10:55 (20 minutes)

15 min talk + 5 min discussion

Presenter: MENKE, Sven (Max-Planck-Institut fur Physik (DE))

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: 9

Type: **not specified**

CMS benchmarking of the radiation fields

Tuesday 24 April 2018 11:15 (15 minutes)

12 min talk + 3 min discussion

Presenter: AZHGIREY, Igor (Institute for High Energy Physics (RU))

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: **10**

Type: **not specified**

Inner detector radiation field measurements with RadMons

Tuesday 24 April 2018 11:45 (15 minutes)

12 min talk + 3 min discussion

Presenter: MANDIC, Igor (Jozef Stefan Institute (SI))

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: 11

Type: **not specified**

LHCb benchmarking of the radiation fields

Tuesday 24 April 2018 11:30 (15 minutes)

12 min talk + 3 min discussion

Presenter: KARACSON, Matthias (CERN)

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: 12

Type: **not specified**

Discussion on simulation uncertainties and safety factors

Tuesday 24 April 2018 12:15 (15 minutes)

Presenter: DAWSON, Ian (University of Sheffield (GB))

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: 13

Type: **not specified**

ATLAS pixel and strip radiation damage measurements

Session Classification: Sensor Measurements

Contribution ID: 14

Type: **not specified**

CMS Pixel and Strip radiation damage measurements (20'+10')

Monday 23 April 2018 10:05 (30 minutes)

Presenters: HUNT, Julia Alexandra (KIT - Karlsruhe Institute of Technology (DE)); HUNT, Julia Alexandra (KIT - Karlsruhe Institute of Technology (DE))

Session Classification: Sensor Measurements

Contribution ID: 15

Type: **not specified**

LHCb radiation damage measurements

Session Classification: Sensor Measurements

Contribution ID: 16

Type: **not specified**

Measurement of composition of radiation fields in the ATLAS experiment with MPX/TPX

Tuesday 24 April 2018 12:00 (15 minutes)

12 min talk + 3 min discussion

Presenter: POSPISIL, Stanislav (Institute of Experimental and Applied Physics, Czech Technical University in Prague)

Session Classification: Radiation Background Simulation and Monitoring

Contribution ID: 17

Type: **not specified**

Introduction

Session Classification: Sensor Measurements

Contribution ID: **18**

Type: **not specified**

Introduction

Monday 23 April 2018 14:00 (10 minutes)

Presenters: ROZANOV, Alexandre (CPPM, Aix-Marseille Université, CNRS/IN2P3 (FR)); BUTZ, Erik (KIT - Karlsruhe Institute of Technology (DE)); DAWSON, Ian (University of Sheffield (GB))

Session Classification: Electronics/Optoelectronics

Contribution ID: 19

Type: **not specified**

TID effects at 130nm pixel electronics at low dose in ATLAS

Monday 23 April 2018 14:10 (20 minutes)

15 min talk + 5 min discussion

Presenter: BACKHAUS, Malte (ETH Zurich (CH))

Session Classification: Electronics/Optoelectronics

Contribution ID: **20**

Type: **not specified**

SEU effects in the ATLAS pixel electronics

Monday 23 April 2018 14:30 (20 minutes)

15 min talk + 5 min discussion

Presenter: BUTTI, Pierfrancesco (CERN)

Session Classification: Electronics/Optoelectronics

Contribution ID: 21

Type: **not specified**

Irradiation effects in the ATLAS optoelectronics

Monday 23 April 2018 14:50 (20 minutes)

15 min talk + 5 min discussion

Presenter: WEIDBERG, Anthony (University of Oxford (GB))

Session Classification: Electronics/Optoelectronics

Contribution ID: 22

Type: **not specified**

SEU in the ATLAS strip detector (SCT)

Monday 23 April 2018 15:10 (20 minutes)

15 min talk + 5 min discussion

Presenter: ROBINSON, Dave (University of Cambridge (GB))

Session Classification: Electronics/Optoelectronics

Contribution ID: 23

Type: **not specified**

Irradiation aging of the electronics of the ATLAS Transition Radiation Tracker (TRT)

Monday 23 April 2018 15:30 (20 minutes)

15 min talk + 5 min discussion

Presenter: HANEY, Bijan (University of Pennsylvania (US))

Session Classification: Electronics/Optoelectronics

Contribution ID: 24

Type: **not specified**

Strip electronics and optoelectronics irradiation effects at CMS

Monday 23 April 2018 16:20 (20 minutes)

15 min talk + 5 min discussion

Presenter: TROSKA, Jan (CERN)

Session Classification: Electronics/Optoelectronics

Contribution ID: 25

Type: **not specified**

SEU in CMS pixels

Monday 23 April 2018 16:40 (20 minutes)

15 min talk + 5 min discussion

Presenter: ERDMANN, Wolfram (Paul Scherrer Institut (CH))

Session Classification: Electronics/Optoelectronics

Contribution ID: 26

Type: **not specified**

Comparison of SEU expectations and observation in VELO tracker and TSMC latch-ups in the new pixels in LHCb

15 min talk + 5 min discussion

Presenter: SPEAKER TBC

Session Classification: Electronics/Optoelectronics

Contribution ID: 27

Type: **not specified**

Irradiation effects in ALICE electronics

Monday 23 April 2018 17:00 (20 minutes)

15 min talk + 5 min discussion

Presenter: HILLEMANN, Hartmut (CERN)

Session Classification: Electronics/Optoelectronics

Contribution ID: **28**

Type: **not specified**

Discussion session

Monday 23 April 2018 17:20 (30 minutes)

Session Classification: Electronics/Optoelectronics

Contribution ID: 29

Type: **not specified**

CMS Sensor Simulations

Session Classification: Sensor Simulation

Contribution ID: **30**

Type: **not specified**

CMS Sensor Simulation

Session Classification: Sensor Simulation

Contribution ID: 31

Type: **not specified**

ATLAS Sensor Simulation

Presenter: BOMBEN, Marco (LPNHE & Université Paris Diderot, Paris (FR))

Session Classification: Sensor Simulation

Contribution ID: **32**

Type: **not specified**

Introduction

Tuesday 24 April 2018 14:00 (10 minutes)

Presenter: BOMBEN, Marco (LPNHE & Université Paris Diderot, Paris (FR))

Session Classification: Sensor Simulation

Contribution ID: 33

Type: **not specified**

Pixel Leakage Current Measurements from ATLAS (20'+5')

Monday 23 April 2018 09:15 (25 minutes)

Presenter: GRUMMER, Aidan (University of New Mexico (US))

Session Classification: Sensor Measurements

Contribution ID: 34

Type: **not specified**

Pixel Depletion Voltage Measurements from ATLAS (15'+5')

Monday 23 April 2018 11:00 (20 minutes)

Presenter: BEYER, Julien-Christopher (Max-Planck-Institut für Physik (DE))

Session Classification: Sensor Measurements

Contribution ID: 35

Type: **not specified**

Leakage Current Measurements from LHCb (20'+5')

Monday 23 April 2018 09:40 (25 minutes)

Presenter: FRANCO LIMA, Vinicius (University of Liverpool (GB))

Session Classification: Sensor Measurements

Contribution ID: 36

Type: **not specified**

Depletion Voltage Measurements from LHCb (20'+5')

Monday 23 April 2018 11:20 (25 minutes)

Presenter: BARTER, William James (University of Manchester (GB))

Session Classification: Sensor Measurements

Contribution ID: 37

Type: **not specified**

Latest News from RD50 (15'+5')

Monday 23 April 2018 12:10 (20 minutes)

Presenter: CENTIS VIGNALI, Matteo (CERN)

Session Classification: Sensor Measurements

Contribution ID: 38

Type: **not specified**

Cluster and Track Property Data/MC in ATLAS (20'+5')

Tuesday 24 April 2018 15:50 (25 minutes)

Presenter: ROSSINI, Lorenzo (Università degli Studi e INFN Milano (IT))

Session Classification: Sensor Simulation

Contribution ID: 39

Type: **not specified**

Silicon Sensor Simulation in the ATLAS Monte Carlo Framework (20'+10')

Tuesday 24 April 2018 14:10 (30 minutes)

Presenter: NACHMAN, Ben (University of California Berkeley (US))

Session Classification: Sensor Simulation

Contribution ID: 40

Type: **not specified**

Silicon Sensor Simulation in the LHCb Monte Carlo Framework (15'+5')

Tuesday 24 April 2018 14:40 (20 minutes)

Presenter: SZUMLAK, Tomasz (AGH University of Science and Technology (PL))

Session Classification: Sensor Simulation

Contribution ID: 41

Type: **not specified**

Silicon Sensor Simulation in the CMS Monte Carlo Framework (15'+5')

Tuesday 24 April 2018 15:00 (20 minutes)

Presenters: SWARTZ, Morris (Johns Hopkins University (US)); SWARTZ, Morris (Johns Hopkins University (JHU))

Session Classification: Sensor Simulation

Contribution ID: 42

Type: **not specified**

Discussion and Closeout

Tuesday 24 April 2018 16:15 (1 hour)

Session Classification: Sensor Simulation

Contribution ID: 43

Type: **not specified**

Measurements with the ATLAS strip detector (20'+5')

Monday 23 April 2018 11:45 (25 minutes)

Presenter: KONDO, Taka (High Energy Accelerator Res. Organ. (KEK))

Session Classification: Sensor Measurements

Contribution ID: 44

Type: **not specified**

Session introduction

Monday 23 April 2018 09:10 (5 minutes)

Presenter: MOLL, Michael (CERN)

Session Classification: Sensor Measurements