Workshop on Experimental Conditions and Beam Induced Detector Backgrounds

Thursday 03 April 2008 - Friday 04 April 2008

CERN

Book of Abstracts
Contents

ALICE ................................................. 1
ATLAS ................................................. 1
Background in RHIC .................................. 1
CMS ..................................................... 1
Collimation .......................................... 1
Discussion .......................................... 1
Discussion .......................................... 1
Discussion .......................................... 1
Discussion .......................................... 2
Discussion .......................................... 2
Discussion .......................................... 2
Discussion .......................................... 2
Discussion .......................................... 2
Discussion .......................................... 2
Discussion .......................................... 2
Discussion .......................................... 2
Discussion .......................................... 2
Discussion .......................................... 3
Discussion .......................................... 3
Discussion .......................................... 3
Discussion .......................................... 3
Discussion .......................................... 3
Discussion .......................................... 3
Discussion .......................................... 3
Discussion .......................................... 3
Discussion .......................................... 3
Discussion .......................................... 3
What do the experiments require and provide for optimization / 18

**ALICE**

Antonello Di Mauro¹

¹ *CERN*

**Corresponding Author(s):** tapan.nayak@cern.ch, antonio.di.mauro@cern.ch

What do the experiments require and provide for optimization / 14

**ATLAS**

**Corresponding Author(s):** witold.kozanecki@cern.ch

Experience and recommendations from Tevatron, HERA and RHIC / 7

**Background in RHIC**

Angelika Drees¹; Wolfram Fischer²

¹ *Fachbereich C / Physik*
² *BNL*

What do the experiments require and provide for optimization / 16

**CMS**

**Corresponding Author(s):** jeffrey.spalding@cern.ch

LHC conditions : what can be expected and optimized / 32

**Collimation**

LHC conditions : what can be expected and optimized / 25

**Discussion**

LHC conditions : what can be expected and optimized / 27

**Discussion**
What do the experiments require and provide for optimization / 21

Discussion

What do the experiments require and provide for optimization / 23

Discussion

LHC conditions: what can be expected and optimized / 29

Discussion

Experience and recommendations from Tevatron, HERA and RHIC / 2

Discussion

Experience and recommendations from Tevatron, HERA and RHIC / 6

Discussion

Experience and recommendations from Tevatron, HERA and RHIC / 8

Discussion

Experience and recommendations from Tevatron, HERA and RHIC / 13

Discussion

Experience and recommendations from Tevatron, HERA and RHIC / 12
Discussion

What do the experiments require and provide for optimization / 15

Discussion

What do the experiments require and provide for optimization / 17

Discussion

What do the experiments require and provide for optimization / 19

Discussion

LHC conditions : what can be expected and optimized / 31

Discussion

LHC conditions : what can be expected and optimized / 36

Discussion

LHC conditions : what can be expected and optimized / 35

Discussion

LHC conditions : what can be expected and optimized / 26

Effects of backgrounds on experiments
LHC conditions: what can be expected and optimized / 30

Estimates of residual gas pressure in the LHC

Corresponding Author(s): adriana.rossi@cern.ch

Experience and recommendations from Tevatron, HERA and RHIC / 9

Expected sources of background in LHC operation

LHC conditions: what can be expected and optimized / 28

Experiments protection

Corresponding Author(s): daniela.macina@cern.ch

What do the experiments require and provide for optimization / 22

Forward Detectors

Corresponding Author(s): mario.deile@cern.ch

Experience and recommendations from Tevatron, HERA and RHIC / 11

HERA background at the HERA - experiments perspective

Carsten Niebuhr¹

¹ DESY

Corresponding Author(s): niebuhr@mail.desy.de

Experience and recommendations from Tevatron, HERA and RHIC / 5

HERA: Sources & cures of background - machine perspective

Corresponding Author(s): bernhard.holzer@cern.ch
HERA: background at the HERA - experiments perspective

Carsten Niebuhr

1 DESY

Corresponding Author(s): niebuhr@mail.desy.de

What do the experiments require and provide for optimization / 20

LHCb

Corresponding Author(s): gloria.corti@cern.ch

LHC conditions : what can be expected and optimized / 34

Machine-related backgrounds: their origin and loads on ATLAS/CMS

Corresponding Author(s): mokhov@fnal.gov

LHC conditions : what can be expected and optimized / 24

Simulation of machine backgrounds

Corresponding Author(s): vadim.talanov@cern.ch

Experience and recommendations from Tevatron, HERA and RHIC / 1

Tevatron: Sources & cures of background - machine and experiments perspective

Dean Still1 ; Jerry Annala1 ; Rick Tesarek2

1 Fermilab
2 FNAL

Corresponding Author(s): still@fnal.gov

Tevatron: background at the Tevatron - experiments perspective
Rick Tesarek

1 Fermilab

Corresponding Author(s): tesarek@fnal.gov

Experience and recommendations from Tevatron, HERA and RHIC

Welcome