# Institute of Physics: Particle Physics 2005

# **Report of Contributions**

Contribution ID: 1 Type: not specified

#### Status of the LHC

Tuesday 22 March 2005 09:30 (30 minutes)

**Author:** STEVE MYERS (CERN)

**Presenter:** STEVE MYERS (CERN)

**Session Classification:** PLENARY: Onwards and Upwards towards the LHC

GridPP

Contribution ID: 2 Type: not specified

#### **GridPP**

Tuesday 22 March 2005 10:00 (30 minutes)

**Author:** STEVE LLOYD (QMUL)

Presenter: STEVE LLOYD (QMUL)

**Session Classification:** PLENARY: Onwards and Upwards towards the LHC

Contribution ID: 3 Type: not specified

#### **QCD Exotics**

Tuesday 22 March 2005 10:30 (30 minutes)

Author: MIKE PENNINGTON (IPPP Durham)

**Presenter:** MIKE PENNINGTON (IPPP Durham)

Session Classification: PLENARY: Onwards and Upwards towards the LHC

Contribution ID: 4 Type: **not specified** 

#### **WW** scattering at ATLAS

Tuesday 22 March 2005 16:45 (15 minutes)

**Author:** SARAH ALLWOOD (Manchester)

**Presenter:** SARAH ALLWOOD (Manchester)

**Session Classification:** Parallel 5: Electroweak

Contribution ID: 5 Type: **not specified** 

#### Measurement of the W + nJet cross-section at CDF

Tuesday 22 March 2005 16:15 (15 minutes)

Author: BEN COOPER (UCL)

Presenter: BEN COOPER (UCL)

**Session Classification:** Parallel 5: Electroweak

Contribution ID: 6 Type: not specified

#### W/Z cross-sections at the Tevatron

Tuesday 22 March 2005 16:00 (15 minutes)

Author: PAUL TELFORD (Manchester)

**Presenter:** PAUL TELFORD (Manchester)

**Session Classification:** Parallel 5: Electroweak

Contribution ID: 7 Type: **not specified** 

### Search for dimuon events with the H1 detector at HERA

Tuesday 22 March 2005 17:00 (15 minutes)

Author: AWEYS MOHAMED (Liverpool)

**Presenter:** AWEYS MOHAMED (Liverpool)

**Session Classification:** Parallel 5: Electroweak

Contribution ID: 8 Type: not specified

#### Tau to pi pi0 nu\_tau at BABAR

Tuesday 22 March 2005 17:15 (15 minutes)

**Author:** MITCHELL NAISBIT (Manchester)

**Presenter:** MITCHELL NAISBIT (Manchester)

**Session Classification:** Parallel 5: Electroweak

Contribution ID: 9 Type: **not specified** 

#### W charge asymmetry with Run II data at CDF

Tuesday 22 March 2005 16:30 (15 minutes)

Author: CIGDEM ISSEVER (Oxford)

Presenter: CIGDEM ISSEVER (Oxford)

**Session Classification:** Parallel 5: Electroweak

Contribution ID: 10 Type: not specified

#### **Strange Particle Production at Zeus**

Tuesday 22 March 2005 16:00 (15 minutes)

Author: ANDREW COTTRELL (Oxford)

Presenter: ANDREW COTTRELL (Oxford)

**Session Classification:** Parallel 6: QCD 2

Contribution ID: 11 Type: not specified

#### **Determining the Gluon PDF at HERA**

Tuesday 22 March 2005 17:30 (15 minutes)

Author: CHRISTOPHER TARGETT-ADAMS (UCL)

Presenter: CHRISTOPHER TARGETT-ADAMS (UCL)

**Session Classification:** Parallel 6: QCD 2

Contribution ID: 12 Type: not specified

#### **Quark-Gluon Plasma and Baryogenesis**

Tuesday 22 March 2005 16:15 (15 minutes)

Author: DMITRI GRIGORIEV (Maynooth)

Presenter: DMITRI GRIGORIEV (Maynooth)

**Session Classification:** Parallel 6: QCD 2

Contribution ID: 13 Type: not specified

#### Search for excited quark production at H1

Tuesday 22 March 2005 16:45 (15 minutes)

**Author:** ANDY RIMMER (Liverpool)

**Presenter:** ANDY RIMMER (Liverpool)

**Session Classification:** Parallel 6: QCD 2

Contribution ID: 14 Type: not specified

#### Heavy Ion Physics at the NA57 experiment at CERN

Tuesday 22 March 2005 16:30 (15 minutes)

**Author:** PAUL BACON (Birmingham)

Presenter: PAUL BACON (Birmingham)

**Session Classification:** Parallel 6: QCD 2

Contribution ID: 15 Type: not specified

### First results on Beauty production using HERA II data at ZEUS

Tuesday 22 March 2005 17:00 (15 minutes)

Author: SILVIA MIGLIORANZI (UCL)

Presenter: SILVIA MIGLIORANZI (UCL)

**Session Classification:** Parallel 6: QCD 2

Contribution ID: 16 Type: not specified

#### **The ATLAS B Physics Programme**

Tuesday 22 March 2005 17:15 (15 minutes)

**Author:** JAMES CATMORE (Lancaster)

**Presenter:** JAMES CATMORE (Lancaster)

**Session Classification:** Parallel 6: QCD 2

Contribution ID: 17 Type: not specified

## Gallium Nitride UV Detectors for Synchrotron-based protein structure studies

Wednesday 23 March 2005 12:30 (15 minutes)

**Author:** ANDREW BLUE (Glasgow)

**Presenter:** ANDREW BLUE (Glasgow)

**Session Classification:** Parallel 10: QCD3 & Detector R&D 3

Contribution ID: 18 Type: not specified

### Analysis of a File Catalogue for the LHC Computing Grid

Wednesday 23 March 2005 12:00 (15 minutes)

Author: CAITRIANA NICHOLSON (Glasgow)

Presenter: CAITRIANA NICHOLSON (Glasgow)

**Session Classification:** Parallel 10: QCD3 & Detector R&D 3

Contribution ID: 19 Type: not specified

#### Pentaquarks from Lattice QCD

Wednesday 23 March 2005 11:30 (15 minutes)

Author: KEISUKE JIMMY JUGE (Trinity College Dublin)

**Presenter:** KEISUKE JIMMY JUGE (Trinity College Dublin)

Session Classification: Parallel 10: QCD3 & Detector R&D 3

Contribution ID: 20 Type: not specified

#### **Photon Calibration of the CMS ECAL**

Wednesday 23 March 2005 11:45 (15 minutes)

Author: MAIKO TAKAHASHI (Imperial)

Presenter: MAIKO TAKAHASHI (Imperial)

Session Classification: Parallel 10: QCD3 & Detector R&D 3

Contribution ID: 21 Type: not specified

### Wide Bandgap Semiconductors for use as Radiation Hard Detectors

Wednesday 23 March 2005 12:15 (15 minutes)

**Author:** JAMES GRANT (Glasgow)

Presenter: JAMES GRANT (Glasgow)

Session Classification: Parallel 10: QCD3 & Detector R&D 3

Contribution ID: 22 Type: not specified

# An overview of the LHCb RICH1 Magnetic Shielding Design

Tuesday 22 March 2005 16:45 (15 minutes)

Author: RICHARD PLACKETT (Imperial)

Presenter: RICHARD PLACKETT (Imperial)

**Session Classification:** Parallel 7: Detector R&D 2

Contribution ID: 23 Type: not specified

#### **The LHCb Ring Imaging Cherenkov Detectors**

Tuesday 22 March 2005 16:00 (15 minutes)

**Author:** JAMES STOREY (Cambridge)

**Presenter:** JAMES STOREY (Cambridge)

**Session Classification:** Parallel 7: Detector R&D 2

Contribution ID: 24 Type: not specified

#### **LHCb RICH mirror optics**

Tuesday 22 March 2005 16:15 (15 minutes)

Author: ALEX MUIR (Bristol)

Presenter: ALEX MUIR (Bristol)

**Session Classification:** Parallel 7: Detector R&D 2

Contribution ID: 25 Type: not specified

### Pixel Hybrid Photon Detectors for the RICH Detectors at LHCb

Tuesday 22 March 2005 16:30 (15 minutes)

Author: LAURA SOMERVILLE (Oxford)

Presenter: LAURA SOMERVILLE (Oxford)

Session Classification: Parallel 7: Detector R&D 2

Contribution ID: 26 Type: not specified

## Research towards a possible upgrade of the LHCb Vertex Locator

Tuesday 22 March 2005 17:00 (15 minutes)

**Author:** ALISON BATES (Glasgow)

Presenter: ALISON BATES (Glasgow)

**Session Classification:** Parallel 7: Detector R&D 2

Contribution ID: 27 Type: not specified

#### Welcome & introduction

Wednesday 23 March 2005 13:30 (5 minutes)

**Session Classification:** IOP AGM

Contribution ID: 28 Type: not specified

#### Chairperson's report

Wednesday 23 March 2005 13:35 (5 minutes)

**Session Classification:** IOP AGM

Secretary's report

Contribution ID: 29 Type: not specified

#### Secretary's report

Wednesday 23 March 2005 13:40 (5 minutes)

**Session Classification:** IOP AGM

Contribution ID: 30 Type: not specified

#### Elections (see newsletter item)

Wednesday 23 March 2005 13:45 (5 minutes)

**Session Classification:** IOP AGM

Other business

Contribution ID: 31 Type: not specified

#### Other business

Wednesday 23 March 2005 13:50 (5 minutes)

**Session Classification:** IOP AGM

Contribution ID: 32 Type: not specified

#### **Current and Future Neutrino Physics**

Wednesday 23 March 2005 14:00 (45 minutes)

Author: YOSHI UCHIDA (Imperial)

Presenter: YOSHI UCHIDA (Imperial)

**Session Classification:** PLENARY: From Here to There

QCD: From Tevatron to LHC

Contribution ID: 33 Type: not specified

#### **QCD: From Tevatron to LHC**

Wednesday 23 March 2005 14:45 (45 minutes)

Author: JAMES STIRLING (IPPP, Durham)

**Presenter:** JAMES STIRLING (IPPP, Durham)

**Session Classification:** PLENARY: From Here to There

Contribution ID: 34 Type: not specified

#### **Electroweak Physics**

Wednesday 23 March 2005 09:30 (30 minutes)

Author: MARTIN GRUNEWALD (UCD)

Presenter: MARTIN GRUNEWALD (UCD)

Session Classification: PLENARY: Reviews of Current Experimental Results

B physics

Contribution ID: 35 Type: not specified

#### **B** physics

Wednesday 23 March 2005 10:00 (30 minutes)

Author: FRANCESCA DI LODOVICO (QMUL)

Presenter: FRANCESCA DI LODOVICO (QMUL)

Session Classification: PLENARY: Reviews of Current Experimental Results

Exotic exotics

Contribution ID: 36 Type: not specified

#### **Exotic exotics**

Wednesday 23 March 2005 10:30 (30 minutes)

**Author:** TRACEY PRATT (Liverpool)

**Presenter:** TRACEY PRATT (Liverpool)

Session Classification: PLENARY: Reviews of Current Experimental Results

Contribution ID: 37 Type: not specified

## The Dark Side of the Universe: An Astrophysical Perspective

Tuesday 22 March 2005 14:00 (45 minutes)

**Author:** JOE SILK (Oxford)

**Presenter:** JOE SILK (Oxford)

**Session Classification:** PLENARY: His Dark Materials

Contribution ID: 38 Type: not specified

### Can particle physics shed light on the dark secrets of the universe?

Tuesday 22 March 2005 14:45 (45 minutes)

Author: JOHN ELLIS (CERN)

Presenter: JOHN ELLIS (CERN)

**Session Classification:** PLENARY: His Dark Materials

Contribution ID: 39 Type: not specified

#### Light cone distribution amplitude, B-physics, QCD

Wednesday 23 March 2005 11:30 (15 minutes)

Author: ANGELIQUE TALBOT (IPPP Durham)

Presenter: ANGELIQUE TALBOT (IPPP Durham)

**Session Classification:** Parallel 8: Flavour Physics 2

Contribution ID: 40 Type: not specified

#### **Opposite Side Flavor Tagging at D0**

Wednesday 23 March 2005 11:45 (15 minutes)

Author: PHILIP LEWIS (Imperial College)

**Presenter:** PHILIP LEWIS (Imperial College)

**Session Classification:** Parallel 8: Flavour Physics 2

Contribution ID: 41 Type: not specified

#### Inclusive Vub measurements in BABAR

Wednesday 23 March 2005 12:00 (15 minutes)

Author: ROBERTO SACCO (QMUL)

Presenter: ROBERTO SACCO (QMUL)

**Session Classification:** Parallel 8: Flavour Physics 2

Contribution ID: 42 Type: not specified

#### **B\_s** physics at CDF

Wednesday 23 March 2005 12:15 (15 minutes)

Author: SINEAD FARRINGTON (Liverpool)

**Presenter:** SINEAD FARRINGTON (Liverpool)

**Session Classification:** Parallel 8: Flavour Physics 2

Contribution ID: 43 Type: not specified

### Branching Fraction and Time Dependent Analysis of B0 to rho Kshort

Wednesday 23 March 2005 12:30 (15 minutes)

**Author:** IAN FORSTER (Liverpool)

**Presenter:** IAN FORSTER (Liverpool)

**Session Classification:** Parallel 8: Flavour Physics 2

Contribution ID: 44 Type: **not specified** 

#### Measurement of the mass of B\_c

Wednesday 23 March 2005 12:45 (15 minutes)

Author: PETER BUSSEY (Glasgow)

**Presenter:** PETER BUSSEY (Glasgow)

**Session Classification:** Parallel 8: Flavour Physics 2

Contribution ID: 45 Type: not specified

#### B0 to pi0pi0 and the CKM angle alpha

Tuesday 22 March 2005 16:00 (15 minutes)

Author: CARLOS CHAVEZ (Liverpool)

Presenter: CARLOS CHAVEZ (Liverpool)

Session Classification: Parallel 4: Flavour Physics 1

Contribution ID: 46

Type: not specified

## The decay B- to D0 $K^*$ and the CKM angle gamma in BABAR

Tuesday 22 March 2005 16:15 (15 minutes)

Author: PAUL JACKSON (RHUL)

Presenter: PAUL JACKSON (RHUL)

Session Classification: Parallel 4: Flavour Physics 1

Contribution ID: 47 Type: **not specified** 

#### Dalitz Plot analysis of B+ to K+K+K- at BABAR

Tuesday 22 March 2005 16:30 (15 minutes)

**Author:** MATTHEW BARRETT (Birmingham)

Presenter: MATTHEW BARRETT (Birmingham)

Session Classification: Parallel 4: Flavour Physics 1

Contribution ID: 48 Type: not specified

#### Amplitude analysis of B+ to K+pi+pi- at BABAR

Tuesday 22 March 2005 16:45 (15 minutes)

**Author:** TOM LATHAM (Warwick)

Presenter: TOM LATHAM (Warwick)

**Session Classification:** Parallel 4: Flavour Physics 1

Contribution ID: 49 Type: not specified

#### Radiative Penguin Decays at BABAR

Tuesday 22 March 2005 17:15 (15 minutes)

Author: DEBBIE BARD (Edinburgh)

**Presenter:** DEBBIE BARD (Edinburgh)

**Session Classification:** Parallel 4: Flavour Physics 1

Contribution ID: **50** Type: **not specified** 

## Branching Fraction measurement of D\_s+ to K+pi0 at BABAR

Tuesday 22 March 2005 17:30 (15 minutes)

Author: MICHAEL NIKOLICH (Imperial)

**Presenter:** MICHAEL NIKOLICH (Imperial)

Session Classification: Parallel 4: Flavour Physics 1

Contribution ID: 51 Type: not specified

#### B+ to K+K-pi+ at BABAR

Tuesday 22 March 2005 17:00 (15 minutes)

**Author:** JAMES BURKE (Bristol)

**Presenter:** JAMES BURKE (Bristol)

Session Classification: Parallel 4: Flavour Physics 1

Contribution ID: 52 Type: not specified

#### Search for crypto-exotic states in BABAR

Wednesday 23 March 2005 11:30 (15 minutes)

Author: DANIEL SHERWOOD (Brunel)

Presenter: DANIEL SHERWOOD (Brunel)

**Session Classification:** Parallel 9: New Physics

Contribution ID: 53 Type: not specified

## Searches for new physics in high mass at CDF and ATLAS

Wednesday 23 March 2005 12:15 (15 minutes)

Author: MUGE KARAGOZ UNEL (Oxford)

Presenter: MUGE KARAGOZ UNEL (Oxford)

**Session Classification:** Parallel 9: New Physics

Contribution ID: 54 Type: **not specified** 

#### Searching for Gluino-Gluino bound states at ATLAS

Wednesday 23 March 2005 12:45 (15 minutes)

**Author:** ANNE SMALL (Lancaster)

**Presenter:** ANNE SMALL (Lancaster)

**Session Classification:** Parallel 9: New Physics

Contribution ID: 55 Type: not specified

# Search for associated chargino-neutralino production in three-lepton events at CDF

Wednesday 23 March 2005 12:30 (15 minutes)

Author: MARTIN GRIFFITHS (Liverpool)

Presenter: MARTIN GRIFFITHS (Liverpool)

**Session Classification:** Parallel 9: New Physics

Contribution ID: 56 Type: not specified

## Searches for the Theta(1540)+ strange pentaquark candidate in BABAR

Wednesday 23 March 2005 11:45 (15 minutes)

Author: JON COLEMAN (Liverpool)

Presenter: JON COLEMAN (Liverpool)

**Session Classification:** Parallel 9: New Physics

Contribution ID: 57 Type: not specified

#### Neutrino masses in lepton number violating MSSM

Wednesday 23 March 2005 12:00 (15 minutes)

**Author:** STEVEN RIMMER (Durham)

Presenter: STEVEN RIMMER (Durham)

**Session Classification:** Parallel 9: New Physics

Contribution ID: 58 Type: not specified

#### A Laser-Wire for the Linear Collider

Tuesday 22 March 2005 12:15 (15 minutes)

Author: NICOLAS DELERUE (Oxford)

Presenter: NICOLAS DELERUE (Oxford)

**Session Classification:** Parallel 2: Detector R&D 1

Contribution ID: **59** Type: **not specified** 

## **Charge Transfer Inefficiency Studies for Future CCD Vertex Detector**

Tuesday 22 March 2005 12:30 (15 minutes)

**Author:** JAMES WALDER (Lancaster)

**Presenter:** JAMES WALDER (Lancaster)

Session Classification: Parallel 2: Detector R&D 1

Contribution ID: **60** Type: **not specified** 

#### The CMS tracker front end readout electronics

Tuesday 22 March 2005 12:45 (15 minutes)

**Author:** JAMES LEAVER (Imperial)

**Presenter:** JAMES LEAVER (Imperial)

**Session Classification:** Parallel 2: Detector R&D 1

Contribution ID: 61 Type: not specified

#### **MICE**

Tuesday 22 March 2005 11:30 (15 minutes)

Author: LARA HOWLETT (Sheffield)

**Presenter:** LARA HOWLETT (Sheffield)

**Session Classification:** Parallel 2: Detector R&D 1

Contribution ID: 62 Type: not specified

#### **Scintillating Fibre Tracker for MICE**

Tuesday 22 March 2005 11:45 (15 minutes)

**Author:** MALCOLM ELLIS (Imperial)

**Presenter:** MALCOLM ELLIS (Imperial)

Session Classification: Parallel 2: Detector R&D 1

Contribution ID: 63 Type: not specified

#### The MINOS calibration system

Tuesday 22 March 2005 12:00 (15 minutes)

**Author:** PHILIP SYMES (Sussex)

Presenter: PHILIP SYMES (Sussex)

**Session Classification:** Parallel 2: Detector R&D 1

Contribution ID: 64 Type: not specified

#### The DRIFT Dark Matter Experiment

Tuesday 22 March 2005 11:30 (15 minutes)

Author: JENNIE DAVIES (Sheffield)

Presenter: JENNIE DAVIES (Sheffield)

Session Classification: Parallel 3: Dark Matter / Higgs

Contribution ID: 65 Type: not specified

#### Invisible Higgs at the CMS detector

Tuesday 22 March 2005 12:15 (15 minutes)

Author: SIMON METSON (Bristol)

Presenter: SIMON METSON (Bristol)

**Session Classification:** Parallel 3: Dark Matter / Higgs

Contribution ID: 66 Type: not specified

#### Higgs searches at CMS

Tuesday 22 March 2005 12:00 (15 minutes)

Author: ROB FRAZIER (Bristol)

Presenter: ROB FRAZIER (Bristol)

Session Classification: Parallel 3: Dark Matter / Higgs

Contribution ID: 67 Type: not specified

#### Studying a Light Higgs Boson in ATLAS

Tuesday 22 March 2005 12:30 (15 minutes)

**Author:** SCOTT MCGARVIE (RHUL)

Presenter: SCOTT MCGARVIE (RHUL)

**Session Classification:** Parallel 3: Dark Matter / Higgs

Contribution ID: 68 Type: not specified

### Search for Neutral Supersymmetric Higgs Bosons at D0

Tuesday 22 March 2005 11:45 (15 minutes)

**Author:** TIM SCANLON (Imperial)

**Presenter:** TIM SCANLON (Imperial)

**Session Classification:** Parallel 3: Dark Matter / Higgs

Contribution ID: 69 Type: not specified

# Jet Clustering Effects in the tth, h to bb channel at ATLAS

Tuesday 22 March 2005 12:45 (15 minutes)

Author: CHRISTIAN SHAW (Glasgow)

Presenter: CHRISTIAN SHAW (Glasgow)

Session Classification: Parallel 3: Dark Matter / Higgs

Contribution ID: **70** Type: **not specified** 

## Direct extraction of QCD Lambda MSbar from Moments of DIS structure functions

Tuesday 22 March 2005 11:30 (15 minutes)

Author: PAUL BROOKS (Durham)

**Presenter:** PAUL BROOKS (Durham)

**Session Classification:** Parallel 1: QCD 1

Contribution ID: 71 Type: not specified

#### Gluon Saturation in the Colour Dipole Model

Tuesday 22 March 2005 11:45 (15 minutes)

Author: GRAHAM SHAW (Manchester)

**Presenter:** GRAHAM SHAW (Manchester)

**Session Classification:** Parallel 1: QCD 1

Contribution ID: 72 Type: not specified

#### Gaps between Jets in the High Energy Limit

Tuesday 22 March 2005 12:00 (15 minutes)

Author: ALBRECHT KYRIELEIS (Manchester)

**Presenter:** ALBRECHT KYRIELEIS (Manchester)

**Session Classification:** Parallel 1: QCD 1

Contribution ID: 73 Type: not specified

### **Exclusive Double Diffraction at the Tevatron and LHC**

Tuesday 22 March 2005 12:15 (15 minutes)

**Author:** JAMES MONK (Manchester)

**Presenter:** JAMES MONK (Manchester)

**Session Classification:** Parallel 1: QCD 1

Contribution ID: 74 Type: **not specified** 

#### The underlying event in jet physics at TeV colliders

Tuesday 22 March 2005 12:30 (15 minutes)

**Author:** ARTHUR MORAES (Glasgow)

Presenter: ARTHUR MORAES (Glasgow)

 $\textbf{Session Classification:} \ \ \text{Parallel 1: QCD 1}$ 

Contribution ID: 75 Type: not specified

#### Jet Energy Scale Issues at D0

Tuesday 22 March 2005 12:45 (15 minutes)

Author: LYDIA LOBO (Imperial)

Presenter: LYDIA LOBO (Imperial)

**Session Classification:** Parallel 1: QCD 1