Questioning Fundamental Physical Principles

Report of Contributions

https://indico.cern.ch/e/qfpp2014

Contribution ID: **0** Type: **not specified**

Welcome

Tuesday, 6 May 2014 09:00 (5 minutes)

Presenter: Prof. MAVROMATOS, Nikos (University of London (GB))

Session Classification: Opening

Contribution ID: **1** Type: **not specified**

Latest on Supersymmetry, Higgs and LHC Physics

Tuesday, 6 May 2014 09:05 (30 minutes)

Presenter: ELLIS, Jonathan R. (CERN)

Session Classification: Session I

Contribution ID: **2** Type: **not specified**

Discrete Symmetries T, CP and CPT

Tuesday, 6 May 2014 09:35 (30 minutes)

Presenter: BERNABEU, Jose (Universidad de Valencia)

Session Classification: Session I

Contribution ID: **3** Type: **not specified**

CPT and neutrinos

Tuesday, 6 May 2014 10:05 (30 minutes)

Presenter: BARENBOIM, Gabriela

Session Classification: Session I

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

Experimental status of Supersymmetry

Friday, 9 May 2014 12:10 (30 minutes)

Presenter: Dr MITSOU, Vasiliki (IFIC Valencia (ES))

Session Classification: Session XIV

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

Experimental prospects for T and CPT symmetries tests in the B meson system

Tuesday, 6 May 2014 11:00 (30 minutes)

Presenter: BEVAN, Adrian (University of London (GB))

Session Classification: Session II

Contribution ID: **6** Type: **not specified**

Testing fundamental physical principles with entangled neutral K mesons

Tuesday, 6 May 2014 11:30 (30 minutes)

Presenter: DI DOMENICO, Antonio (Universita e INFN, Roma I (IT))

Session Classification: Session II

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

Fundamental Physics results at LHCb and future perspectives

Tuesday, 6 May 2014 12:00 (30 minutes)

Presenter: PASSALEVA, Giovanni (INFN Florence (IT))

Session Classification: Session II

Contribution ID: **8** Type: **not specified**

On Lorentz violation and the origin of Gravity

Tuesday, 6 May 2014 14:30 (30 minutes)

Presenter: KIRITSIS, Elias (Unknown)

Session Classification: Session III

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

Test of CPT and Lorentz symmetry with entangled K0's

Tuesday, 6 May 2014 15:00 (30 minutes)

Presenter: Dr DE SANTIS, Antonio (U. di Roma "La Sapienza")

Session Classification: Session III

Contribution ID: **10** Type: **not specified**

Time-dependent CP violation and stability of the entangled B Bbar state at Belle

Tuesday, 6 May 2014 12:30 (30 minutes)

Presenter: SCHWANDA, Christoph (Austrian Academy of Sciences)

Session Classification: Session II

Contribution ID: **11** Type: **not specified**

Physics with entangled neutral D mesons at BES-III and future perspectives

Tuesday, 6 May 2014 16:30 (30 minutes)

Presenter: Dr LU, Xiaorui

Session Classification: Session IV

Contribution ID: **12** Type: **not specified**

Photon-photon scattering and the nature of QED vacuum: experimental approaches

Thursday, 8 May 2014 17:30 (30 minutes)

Presenter: Prof. MILOTTI, Edoardo

Session Classification: Session XII

Contribution ID: **13** Type: **not specified**

The possible existence of a Time Operator and its possible refutal in meson experiments

Tuesday, 6 May 2014 17:30 (30 minutes)

Presenter: Prof. DURT, Thomas

Session Classification: Session IV

Contribution ID: **14** Type: **not specified**

Inflation & Supersymmetry

Wednesday, 7 May 2014 09:00 (30 minutes)

Presenter: OLIVE, Keith Alison (University of Minnesota (US))

Session Classification: Session V

Contribution ID: **15** Type: **not specified**

Higgs inflation at the critical point

Wednesday, 7 May 2014 09:30 (30 minutes)

Presenter: SHAPOSHNIKOV, Mikhail (EPFL)

Session Classification: Session V

Contribution ID: **16** Type: **not specified**

Testing Baryogenesis at the LHC

Wednesday, 7 May 2014 10:00 (30 minutes)

Presenter: MOHAPATRA, Rabindra (University of Maryland)

Session Classification: Session V

Contribution ID: **17** Type: **not specified**

Neutrinos and Leptogenesis in Early Universe

Wednesday, 7 May 2014 11:00 (30 minutes)

Presenter: PASCOLI, Silvia (University of Durham (GB))

Session Classification: Session VI

Contribution ID: **18** Type: **not specified**

Flavour and Thermal Effects on Leptogenesis

Wednesday, 7 May 2014 11:30 (30 minutes)

Presenter: PILAFTSIS, Apostolos (University of Manchester)

Session Classification: Session VI

Contribution ID: **19** Type: **not specified**

Vacuum Energy and \Lambda: a new perspective

Wednesday, 7 May 2014 12:00 (30 minutes)

Presenter: DADHICH, Naresh

Session Classification: Session VI

Contribution ID: **21** Type: **not specified**

Strings, and CPT Violating Baryon Asymmetry in the Universe

Wednesday, 7 May 2014 12:30 (30 minutes)

Presenter: SARKAR, Sarben (King's College London)

Session Classification: Session VI

Contribution ID: **22** Type: **not specified**

CPTV leptogenesis

Wednesday, 7 May 2014 15:10 (30 minutes)

Presenter: MUKHOPADHYAYA, Banibrata

Session Classification: Session VII

Contribution ID: **23** Type: **not specified**

flavor neutrino states and quantum entanglement

Wednesday, 7 May 2014 15:40 (30 minutes)

Presenter: BLASONE, M.

Session Classification: Session VII

Contribution ID: **24** Type: **not specified**

Questioning causality, unitarity and CPT in curved spacetime QFT

Friday, 9 May 2014 09:00 (30 minutes)

Presenter: SHORE, Graham Martin (Swansea University (GB))

Session Classification: Session XIII

Contribution ID: **25** Type: **not specified**

The Continuing Quest for the Magnetic Monopole

Friday, 9 May 2014 09:30 (30 minutes)

Presenter: PINFOLD, James (University of Alberta (CA))

Session Classification: Session XIII

Contribution ID: **26** Type: **not specified**

Lorentz breaking effective field theories: phenomenology and constraints

Friday, 9 May 2014 10:00 (40 minutes)

Presenter: LIBERATI, Stefano

Session Classification: Session XIII

Contribution ID: **27** Type: **not specified**

Probing the space-time structure: the holometer experiment at Fermilab

Thursday, 8 May 2014 09:30 (45 minutes)

Presenter: HOGAN, Craig

Session Classification: Session IX

Contribution ID: **28** Type: **not specified**

The most preicise tests of the standard model and its symmetries

Thursday, 8 May 2014 14:45 (45 minutes)

Presenter: GABRIELSE, Gerald (Harvard University (US))

Session Classification: Session XI

Contribution ID: **29** Type: **not specified**

Hyperfine structure of antihydrogen in ASCUSA

Thursday, 8 May 2014 11:15 (30 minutes)

Presenter: WIDMANN, Eberhard (Austrian Academy of Sciences (AT))

Session Classification: Session X

Contribution ID: **30** Type: **not specified**

Physics of ASACUSA: the spectroscopy of antiprotonic helium

Thursday, 8 May 2014 11:45 (30 minutes)

Presenter: Prof. HAYANO, Ryugo (University of Tokyo (JP))

Session Classification: Session X

Contribution ID: **31** Type: **not specified**

Antihydrogen physics with ALPHA

Thursday, 8 May 2014 12:15 (30 minutes)

Presenter: CHARLTON, Michael (Swansea University)

Session Classification: Session X

Contribution ID: **32** Type: **not specified**

VIP-2 at Gran Sasso - an experiment to test the Pauli Principle for electrons

Wednesday, 7 May 2014 18:05 (30 minutes)

Presenter: MARTON, Johann (Oesterreichische Akademie der Wissenschaften)

Session Classification: Session VIII

Contribution ID: **33** Type: **not specified**

The ELENA project at CERN

Thursday, 8 May 2014 12:45 (30 minutes)

Presenter: OELERT, Walter (Johannes-Gutenberg-Universitaet Mainz (DE))

Session Classification: Session X

Contribution ID: **34** Type: **not specified**

Overview of Physics results at CMS

Thursday, 8 May 2014 15:30 (30 minutes)

Presenter: CLERBAUX, Barbara (Inter-University Institute for High Energies (BE))

Session Classification: Session XI

Contribution ID: **35** Type: **not specified**

Overview of Physics results at ATLAS

Thursday, 8 May 2014 16:00 (30 minutes)

Presenter: Prof. LUBATTI, Henry (University of Washington (US))

Session Classification: Session XI

Contribution ID: **36** Type: **not specified**

on dark photon searches

Thursday, 8 May 2014 17:00 (30 minutes)

Presenter: KUPSC, Andrzej

Session Classification: Session XII

Contribution ID: **37** Type: **not specified**

Prospects for studies of discrete symmetries with positronium

Tuesday, 6 May 2014 15:30 (30 minutes)

Presenter: MOSKAL, Pawel (Jagiellonian University)

Session Classification: Session III

Contribution ID: **38** Type: **not specified**

Tests of fundamental principles

Friday, 9 May 2014 11:10 (30 minutes)

Presenter: LAEMMERZAHL, C.

Session Classification: Session XIV

Contribution ID: **40** Type: **not specified**

Recent developments in Collapse Models

Wednesday, 7 May 2014 16:10 (30 minutes)

Presenter: BASSI, Angelo

Session Classification: Session VII

Contribution ID: **41** Type: **not specified**

CP violation and quantum entanglement and possible spontaneous collapses of the wave function

Wednesday, 7 May 2014 17:05 (30 minutes)

Presenter: HIESMAYR, Beatrix (University of Vienna)

Session Classification: Session VIII

Contribution ID: **42** Type: **not specified**

X-ray experiments to test collapse models

Wednesday, 7 May 2014 17:35 (30 minutes)

Presenter: CURCEANU, Catalina (LNF-INFN)

Session Classification: Session VIII

Contribution ID: **43** Type: **not specified**

Improving interferometers by quantum light: is possible testing quantum gravity on an Optical bench?

Thursday, 8 May 2014 10:15 (30 minutes)

Presenter: GENOVESE, Marco (Universita degli Studi di Torino)

Session Classification: Session IX

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

Boson Sampling via integrated quatum photonics

Thursday, 8 May 2014 09:00 (30 minutes)

Presenter: SCIARRINO, Fabio

Session Classification: Session IX

Contribution ID: **46** Type: **not specified**

Some general results on CP and CPT violating parameters determined from C=-1 and C=+1 entangled states

Tuesday, 6 May 2014 17:00 (30 minutes)

Presenter: Prof. SHI, Yu

Session Classification: Session IV

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

The AEGIS experiment at the CERN antiproton decelerator

Friday, 9 May 2014 11:40 (30 minutes)

Presenter: DOSER, Michael (CERN)

Session Classification: Session XIV

Contribution ID: **49** Type: **not specified**

50 years of CP violation

Friday, 9 May 2014 12:40 (20 minutes)

Presenter: STEINBERGER, Jack (Sezione di Pisa (IT))

Session Classification: Closing: 50 years of CP Violation