

Frontiers of Fundamental Physics 14

Marseille, July 15–18, 2014

Program and Speakers

Updated on January 8, 2015

08h00 – 08h45 Conference Registration, Room “Salle de Conférences”

08h45 – 10h30 Plenary session

Plenary Session (broadcast)

Chairman: Eric Kajfasz

Amphi “Sciences Naturelles”

08h45 – 09h00 Roland **Triay** (CPT)

Opening

09h00 – 09h30 Gabriele **Veneziano** (CdF)

Personal reflections on two success stories

09h30 – 10h00 Paraskevas **Sphicas** (CERN and Athens)

Status of HEP after the LHC Run 1

10h00 – 10h30 Subir **Sarkar** (UOXF & NBI)

Discovering dark matter

10h30 – 11h00 Coffee break

11h00 – 12h30 Morning parallel plenary sessions

Plenary Session 1 The visible universe (broadcast)

Chairman: François Bouchet

Amphi “Sciences Naturelles”

11h00 – 11h30 Enrique **Gaztañaga** (ICE, IEEC-CSIC)

LSS with angular cross-correlations: Combining Spectroscopic and Photometric Surveys

11h30 – 12h00 Adi **Nusser** (IIT)

Dynamics of the Cosmic Web

12h00 – 12h30 Pierre **Astier** (LPNHE)

Distances to supernovae: an efficient probe of dark energy

Plenary Session 2 New Geometries for Physics

Chairman: Fedele Lizzi

Amphi “Massiani”

11h00 – 11h45 Ali **Chamseddine** (AUB and IHES)

Geometric Unification

11h45 – 12h30 Pierre **Bieliavsky** (UCLouvain)

Geometrical aspects of deformation quantization

Plenary Session 3 Gravitation and the Quantum

Chairman: Jerzy Lewandowski

Amphi “Charve”

11h00 – 11h45 Walter **Greiner** (FIAS)

There are no black holes: Pseudo-Complex General Relativity From Einstein to Zweistein

11h45 – 12h30 Eugenio **Bianchi** (Penn State)

Last gasps of a black hole

12h30 – 14h30 Lunch

Program July, 15

14h30 – 16h30 First afternoon parallel sessions

Astroparticle Physics Dark matter

Chairman: Subir Sarkar

Amphi “Charve”

14h30 – 15h03 Benoit **Famaey** (UNISTRA)

Dark Matter in the Milky Way

15h03 – 15h36 Jules **Gascon** (IPNL)

Review of Dark Matter Direct Searches

15h36 – 16h09 Piero **Ullio** (SISSA)

Indirect dark matter detection: recent results and perspectives

16h10 – 16h30 Thomas **Lacroix** (IAP)

Fitting the Fermi-LAT GeV excess: on the importance of the propagation of electrons from dark matter

Cosmology Galaxies Clusters | Cosmological Parameters

Chairman: Christian Marinoni

Amphi “Sciences Naturelles”

14h30 – 15h00 Roser **Pello** (IRAP)

Looking for the first star-forming galaxies in the univers

15h00 – 15h30 Felix **Mirabel** (CEA-Saclay)

High energy sources during the re-ionization epoch of the universe

15h30 – 15h50 Martin **Feix** (Technion)

Tracing the cosmic velocity field at $z \sim 0.1$ from galaxy luminosities in the SDSS DR7

15h50 – 16h10 Heinrich **Steigerwald** (AMU)

Probing non-standard gravity with the growth index of cosmological perturbations

16h10 – 16h30 Màrius Josep **Fullana i Alfonso** (IMM - UPV)

Some remarks on new numerical estimations of the Rees-Sciama effect

High Energy Physics Standard Model and EW precision measurement

Chairman: Cristi Diaconou

Amphi “Massiani”

14h30 – 15h00 Alain **Blondel** (DPNC University of Geneva)

Precision Electroweak Measurements at Future High Energy Colliders

15h00 – 15h30 Satoshi **Mishima** (University of Rome, La Sapienza)

Constraints on Higgs physics from EW precision measurements

15h30 – 16h00 Marco **Zaro** (LPTHE, UPMC)

(Getting ready for) precision physics at hadron colliders

16h00 – 16h30 Kiran **Joshi** (UoM)

Measurement of EW production of $Z + 2j$ at the LHC

Quantum Gravity Loops and Twistors

Chairman: J. Lewandowski

Room 404

14h30 – 15h00 Tim **Adamo** (DAMTP)

Gravitational Scattering via Twistor Theory

15h00 – 15h30 Sergey **Alexandrov** (UM2)

First order gravity on the light front

15h30 – 16h00 Etera **Livine** (ENS Lyon)

Spinorial Path Integral for Loop Gravity: Coherent states and Spinfoam symmetries

16h00 – 16h30 Wolfgang **Wieland** (IGC)

Loop gravity from a spinorial action

Mathematical Physics Noncommutative Geometry and QFT

Chairman: Raimar Wolkenhaar

Room 406

14h30 – 15h15 Fedele **Lizzi** (UNINA)

Noncommutative Geometry, the Spectral Action and Fundamental Symmetries

15h15 – 16h00 Christian **Brouder** (IMPMP)

Noncommutative version of Borchers’ approach to quantum field theory

16h00 – 16h30 Fabien **Besnard** (EPF)

Causality and Noncommutative Geometry

Physics Education New pedagogical approach in Physics Education

Chairman: Jacques Ginestié

Room 407

14h30 – 15h00 Cécile **Barbachoux** (ESPE)

Dynamics of pedagogical innovations: roots and developments. Cases of study in Physics and Mathematic

15h00 – 15h30 Elie **Milgrom** (UCL)

Less teaching yields better learning

15h30 – 16h00 Frédéric **Bouquet** (UPS)

Reimagining the teaching of physics in university

16h00 – 16h30 Paula **Heron** (Univ. Washington)

Designing and evaluating new approaches to instruction

Epistemology and Philosophy Early Relativistic Cosmology

Chairman: Jean-Jacques Szczeciniarz

Room 408

14h30 – 15h05 Jean-Pierre **Luminet** (LUTH)

Lemaître’s Big Bang

15h05 – 15h40 Martín **López-Corredoira** (IAC)

The Twilight of the Scientific Age

15h40 – 16h15 Joseph **Kouneiher** (UNS)

Roots and perspective of Bergmann-Einstein scalar tensor theory: the unpublished paper

Frontiers of Fundamental Physics

Chairman: Walter Greiner

Room 405

14h30 – 15h00 Alexander **Burinskii** (NSI RAS)

From Kerr-Newman Black Hole to Spinning Particle: Where is There Hidden the Dirac Equation?

15h00 – 15h30 Igor **Kanatchikov** (KCIK)

Precanonical quantization from the first principles to quantization of gravity

15h30 – 16h00 Alessandro **Spallicci** (UO, OSUC)

Solar wind test of the de Broglie-Proca’s massive photon with Cluster multi-spacecraft data

16h00 – 16h30 Sergey **Mayburov** (FIAN)

Fuzzy Topology, Quantization and Gauge Fields

16h30 – 17h00 Coffee break

17h00 – 18h30 Second afternoon parallel sessions

Astroparticle Physics Dark matter

Chairman: Julien Lavalie

Amphi "Charve"

17h00 – 17h20 Stefano **Magni** (LUPM)

Revisiting the escape speed impact on dark matter direct detection

17h20 – 17h40 Li **Tao** (LAPP)

Measurement of leptons related quantities in AMS

17h40 – 18h00 Pol **Mollitor** (LAM)

Cosmological N-body+hydro simulations of spiral galaxies and dark matter detection

Cosmology Galaxies Clusters | Cosmological Parameters

Chairman: Adi Nusser

Amphi "Sciences Naturelles"

17h00 – 17h30 Alain **Blanchard** (IRAP)

Clusters for Cosmology

17h30 – 18h00 Antonaldo **Diaferio** (UniTo)

Measuring the growth of galaxy clusters

18h00 – 18h20 Stéphane **Ilic** (IRAP)

The baryon fraction in clusters and scaling relations in LCDM from X-ray and Planck data

High Energy Physics Standard Model and EW precision measurement

Chairman: Gilbert Moultaqa

Amphi "Massiani"

17h00 – 17h30 Jordi **Nadal** (II. Physikalisches Institut)

Top production at the LHC

17h30 – 18h00 Gordon **Watts** (UW, Seattle)

Top quark mass measurements at hadron colliders

18h00 – 18h30 Susanne **Westhoff** (PITT PACC)

The Top-Quark Charge Asymmetry – Testing Strong Interactions and More

Quantum Gravity Loops and Twistors

Chairman: S. Speziale

Room 404

17h00 – 17h30 Antonia **Zipfel** (FUW)

Plebanski sectors of the Lorentzian 4-simplex amplitude

17h30 – 18h00 Robert **Oeckl** (CCM-UNAM)

Quantum Gravity and the Foundations of Quantum Theory

Mathematical Physics Noncommutative Geometry

Chairman: Walter van Suijlekom

Room 406

17h00 – 17h45 Francesco **D'Andrea** (UNINA)

Vector bundles on the noncommutative torus from cochain quantization

17h45 – 18h30 Pierre **Martinetti** (UNINA)

Geometry with a cut-off

Epistemology and Philosophy Early Relativistic Cosmology

Chairman: Julien Bernard

Room 408

17h00 – 17h35 Alexander **Afriat** (UBO)

Weyl's gauge argument

17h35 – 18h10 Gabriel **Catren** (SPHERE)

On the Relation Between Gauge and Phase Symmetries

Frontiers of Fundamental Physics

Chairman: Alexander Burinskii

Room 405

17h00 – 17h30 Alessandro **Tosini** (UNIPV)

Informational features of Fermionic systems

17h30 – 18h00 Antonio **Padilla** (UoN)

Sequestering the Standard Model Vacuum Energy

19h00, Public Lecture, Jean-Pierre Luminet : Les bâtisseurs du ciel, de Copernic à demain

Program July, 16

09h00 – 10h30 Plenary session

Plenary Session (broadcast)

Chairman: Gabriele Veneziano

09h00 – 09h45 François **Bouchet** (IAP)
Cosmological results from Planck and LSS

09h45 – 10h30 Stefan **Pokorski** (FUW)
Status of the BSM scenarios

Amphi “Sciences Naturelles”

10h30 – 11h00 Coffee break

11h00 – 12h30 Morning parallel plenary sessions

Plenary Session 1 Modelling the universe

Chairman: Alain Blanchard

11h00 – 11h30 Alan **Heavens** (ICIC)
Weak gravitational lensing

11h30 – 12h00 David **Spergel** (Princeton)
The Signature of Low Redshift Large-Scale Structure in the Cosmic Microwave Background

12h00 – 12h30 Luigi **Guzzo** (INAF - OA Brera)
Cosmology with Galaxy Redshift Surveys

Amphi “Charve”

Plenary Session 2 (broadcast)

Chairman: Laurent Vacavant

11h00 – 11h30 Jose W.F **Valle** (IFIC)
Neutrino pathways to cosmology

11h30 – 12h00 Fabio **Maltoni** (CP3)
The top-quark gateway to new physics

12h00 – 12h30 Francis **Halzen** (WIPAC)
IceCube and the Discovery of High-Energy Cosmic Neutrinos

Amphi “Sciences Naturelles”

Plenary Session 3 Gravitation and the Quantum

Chairman: Eugenio Bianchi

11h00 – 11h45 Jorge **Pullin** (LSU)
Hawking radiation in loop quantum gravity

11h45 – 12h30 Burra **Sidharth** (BMBSC)
A Test Bed for High Energy Physics

Amphi “Massiani”

12h30 – 14h30 Lunch

14h30 – 16h30 First afternoon parallel sessions

Astroparticle Physics Neutrinos (common with HEP)

Chairman: Jose W.F Valle

14h30 – 15h00 Antonio **Palazzo** (MPI)
Global status of neutrino oscillations

15h00 – 15h30 Anatael **Cabrera** (APC)
Neutrino Oscillations: Experimental Review

15h30 – 16h00 Pasquale **Di Bari** (UoS)
Leptogenesis and low energy neutrino data

16h00 – 16h30 Xavier **Sarazin** (LAL)
Review of neutrinoless double beta decay search

Amphi “Sciences Naturelles”

Cosmology Theory and Observations of the CMB and LSS

Chairman: Luigi Guzzo

14h30 – 15h00 Subir **Sarkar** (UOXF & NBI)
Galactic foregrounds for the CMB

15h00 – 15h30 Lam **Hui** (Columbia University)
Symmetries in Large Scale Structure

15h30 – 15h50 Julien **Bel** (OAB)
Probing the matter power spectrum with the galaxy clustering ratio

15h50 – 16h10 Giovanni **Marozzi** (DPT - Unige)
The value of H_0 in the inhomogeneous Universe

16h10 – 16h30 Sabir **Ramazanov** (ULB)
Probing primordial statistical anisotropy with WMAP and Planck data

Amphi “Charve”

High Energy Physics Neutrinos (common with Astroparticle Physics)

Chairman: Jose W.F Valle

14h30 – 15h00 Antonio **Palazzo** (MPI)
Global status of neutrino oscillations

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Leptogenesis and low energy neutrino data

16h00 – 16h30 Xavier **Sarazin** (LAL)
Review of neutrinoless double beta decay search

Amphi “Sciences Naturelles”

Quantum Gravity Loop Quantum Cosmology

Chairman: F. Vidotto

14h30 – 15h00 Julien **Grain** (IAS)
A brief overview of loop quantum cosmology and its potential observational signatures

15h00 – 15h30 Edward **Wilson-Ewing** (LSU)
The Matter Bounce Scenario in Loop Quantum Cosmology

15h30 – 16h00 Jaume **Haro** (UPC)
Matter Bounce Scenario in F(T) gravity

16h00 – 16h30 Linda **Linsefors** (LPSC)
LQC on curved FLRW space time

Amphi “Massiani”

Mathematical Physics Noncommutative Geometry and physical models

Chairman: Pierre Bieliavsky

14h30 – 15h15 Ali **Chamseddine** (AUB and IHES)
Noncommutative Geometry and Physics

15h15 – 16h00 Walter **van Suijlekom** (RU)
Inner perturbations in noncommutative geometry

16h00 – 16h30 Michal **Eckstein** (UJ)
Causal structure for noncommutative geometry

Room 406

Physics Education New pedagogical approach in Physics Education

Chairman: Valérie Munier

14h30 – 15h00 Daniel **Rouan** (LESIA)
Soon 20 years of “La Main à La Pâte”, an international model for inquiry-based science education in elementary school

15h00 – 15h30 Alexander **Rudolph** (Cal Poly Pomona)
Introduction of interactive learning into French university physics classrooms

15h30 – 16h00 Marisa **Michelini** (UniUD)
Teaching modern physics in secondary school

16h00 – 16h30 Nadine **Witkowski** (UPMC)
Horizons in Physics Education: a network to improve the attraction of physics

Room 407

Epistemology and Philosophy Interpretations of Quantum Mechanics

Chairman: Marc Lachièze-Rey

14h30 – 15h05 Hervé **Zwirn** (CNRS / CVT)
Decoherence and the measurement problem

15h05 – 15h40 Philipp **Hoehn** (PI)
A novel approach to characterising quantum theory based on limited information and complementarity

15h40 – 16h15 Jérôme **Rosanvallon** (Paris 7)
Quantization, spatiotemporalization and pure variation

Room 408

Frontiers of Fundamental Physics

Chairman: Burra Sidharth

14h30 – 15h00 Valeriy **Dvoeglazov** (UAZ)
Energy-Momentum Tensor in Electromagnetic Theory and Gravitation from Relativistic Quantum Equations

15h00 – 15h30 Cohl **Furey** (PI)
Charge Quantization from a Number Operator

15h30 – 16h00 John **Williamson** (UoG)
A new theory of light and matter

16h00 – 16h30 Joseph **Kouneiher** (UNS)
Higgs fields, Yang-Mills Quantized theories and the Cohomological origine of the mass

Room 405

16h30 – 17h00 Coffee break

17h00 – 18h30 Second afternoon parallel sessions

Astroparticle Physics Neutrinos (common with HEP)

Chairman: Jurgen Brunner

17h00 – 17h30 Paschal **Coyle** (CPPM)
Mediterranean Neutrino Telescopes

17h30 – 18h00 Cristina **Volpe** (APC)
Recent advances in neutrino astrophysics

18h00 – 18h30 Eric **Baussan** (IPHC)
Future of neutrino based reactor experiments

Amphi “Sciences Naturelles”

Cosmology Theory and Observations of the CMB and LSS

Chairman: Lam Hui

17h00 – 17h20 Arnau **Pujol** (ICE-IEEC/CSIC)
The effects of assembly bias on galaxy clustering predictions

17h20 – 17h40 Agnès **Ferté** (IAS)
Constraints on chiral gravity through the CMB polarization

17h40 – 18h00 Martín **López-Corredoira** (IAC)
Tests on the Expansion of the Universe

18h00 – 18h20 Andrei **Khmelnitsky** (BGU)
Scalar field dark matter and pulsar timing observations

Amphi “Charve”

High Energy Physics Neutrinos (common with Astroparticle Physics)

Chairman: Jurgen Brunner

17h00 – 17h30 Paschal **Coyle** (CPPM)
Mediterranean Neutrino Telescopes

17h30 – 18h00 Cristina **Volpe** (APC)
Recent advances in neutrino astrophysics

18h00 – 18h30 Eric **Baussan** (IPHC)
Future of neutrino based reactor experiments

Amphi “Sciences Naturelles”

Quantum Gravity Black-Hole Theory

Chairman: J. Pullin

17h00 – 17h30 Frank **Saueressig** (IMAPP)
Black holes in Asymptotically Safe Gravity

17h30 – 18h00 Alejandro **Perez** (CPT)
Black hole entropy and entanglement of Planckian degrees of freedom

18h00 – 18h30 Jibril **Ben Achour** (APC)
Analytical continuation of black hole entropy in Loop Quantum Gravity

Amphi “Massiani”

Mathematical Physics Noncommutative Geometry and physical models

Chairman: Paolo Aschieri

17h00 – 17h45 Nicola **Pinamonti** (Univ. of Genova)
Influence of quantum matter fluctuations on the expansion parameter of timelike geodesics

17h45 – 18h30 Christoph **Stephan** (UP)
Model building in almost-commutative geometry

Room 406

Physics Education New pedagogical approach in Physics Education

Chairman: Daniel Rouan

17h00 – 17h30 Chang-Mo **Ryu** (POSTECH)
Design and build physics lab course for general physics program in college

17h30 – 18h00 Damir **Buskalic** (UdS / LAPP)
No magic wand for teaching physics

Room 407

Epistemology and Philosophy Interpretations of Quantum Mechanics

Chairman: Alexander Afriat

17h00 – 17h35 Francesca **Vidotto** (IMAPP)
Atomism and Relationalism as guiding principles for Quantum Gravity

17h35 – 18h10 Roman **Sverdlov** (IISER)
Describing many-particle QM as well as QFT in terms of “single particle” QM with one extra dimension

Room 408

Banquet at Palais du Pharo — 19h00

Program July, 17

09h00 – 10h30 Plenary session

Plenary Session (broadcast)

Chairman: Sabino Matarrese

Amphi “Sciences Naturelles”

09h00 – 09h30 Carlo **Rovelli** (CPT)

Loop Quantum Gravity

09h30 – 10h00 Alexei **Starobinsky** (Landau ITP)

Investigating inflation and super-high-energy physics with new CMB data

10h00 – 10h30 Vladimir **Ptuskin** (IPST)

Origin of Cosmic Rays

10h30 – 11h00 Coffee break

11h00 – 12h30 Morning parallel plenary sessions

Plenary Session 1 The primordial universe

Chairman: Alexei Starobinsky

Amphi “Charve”

11h00 – 11h30 David **Wands** (ICG)

Cosmic inflation and primordial structure

11h30 – 12h00 Sabino **Matarrese** (UNIPD)

Primordial non-Gaussianity, present status and future prospects

12h00 – 12h30 Jérôme **Martin** (IAP)

Inflation after Planck & BICEP2

Plenary Session 2

Chairman: Laurent Lellouch

Amphi “Massiani”

11h00 – 11h30 Christian **Hoelbling** (Bergische Universität Wuppertal)

Physical predictions from lattice QCD

11h30 – 12h00 Elena **Amato** (INAF)

Particle acceleration in astrophysical sources

12h00 – 12h30 Federico **Mescia** (UB)

Review of Flavour Physics

Plenary Session 3 (broadcast)

Chairman: Carlo Rovelli

Amphi “Sciences Naturelles”

11h00 – 11h45 Jerzy **Lewandowski** (UW)

Background independence of GR and in LQG

11h45 – 12h30 Bernard **Whiting** (UF)

High precision gravitational self-force calculations and post-Newtonian implications

12h30 – 14h30 Lunch

14h30 – 16h30 First afternoon parallel sessions

Astroparticle Physics Galactic emissions

Chairman: Guy Pelletier

Amphi "Charve"

- 14h30 – 15h00** Yasunobu **Uchiyama** (Rikkyo Univ.)
High Energy and Very High Energy Gamma-rays from Galactic Particle Accelerators
- 15h00 – 15h30** Alexandre **Marcowith** (LUPM)
Cosmic Ray propagation in the interstellar medium
- 15h30 – 16h00** Andrea **Goldwurm** (APC)
High Energy Phenomena at the Center of our Galaxy
- 16h00 – 16h30** Elena **Amato** (INAF)
Particle Acceleration and Radiation in Pulsar Wind Nebulae

Cosmology Physics of the Early Universe

Chairman: Brahim Lamine

Amphi "Sciences Naturelles"

- 14h30 – 15h00** Leonardo **Senatore** (Stanford)
Inflation Physics from the CMB and LSS
- 15h00 – 15h20** Yuko **Urakawa** (Nagoya)
Infrared physics in inflation and primordial perturbations
- 15h20 – 15h40** Inyong **Cho** (SeoulTech)
Inflationary perturbations in Eddington-inspired Born-Infeld gravity
- 15h40 – 16h00** Chiara **Caprini** (IPhT)
Magnetic field generation during inflation
- 16h00 – 16h20** Antonino **Marciano** (Fudan)
Matter-Bounce Spin-Cosmology and consistency with BICEP2 data

High Energy Physics Higgs measurement and BSM

Chairman: Cyril Hugonie

Amphi "Massiani"

- 14h30 – 15h00** Jérémie **Quevillon** (LPT Orsay)
Constraints on BSM physics through the Higgs couplings
- 15h00 – 15h30** Christopher **Neu** (UVa)
Search for ttH in Run 1 at the LHC
- 15h30 – 16h00** Wolfgang **Mader** (IKTP)
Searches for BSM Higgs bosons at LHC
- 16h00 – 16h30** Nikolas **Kauer** (RHUL)
Off-shell Higgs signal and total width determination at the LHC

Quantum Gravity Renormalization

Chairman: S. Alexandrov

Room 404

- 14h30 – 15h00** Daniele **Oriti** (AEI)
A quantum field theory for the atoms of space
- 15h00 – 15h30** Johannes **Thürigen** (AEI)
Group field theories generating polyhedral complexes
- 15h30 – 16h00** Benjamin **Bahr** (UH)
On background-independent renormalization in spin foam models
- 16h00 – 16h30** Seramika **Ari Wahyoedi** (CPT)
How many quanta are there in a quantum spacetime?

Mathematical Physics (New) Geometry and Quantization

Chairman: Christian Brouder

Room 406

- 14h30 – 15h15** Pierre **Bieliavsky** (UCLouvain)
On Drinfel'd twists and their use in non-commutative geometry
- 15h15 – 15h45** Jean-Philippe **Michel** (ULg)
Higher Symmetries of Laplace and Dirac operators - towards supersymmetries
- 15h45 – 16h30** Patrick **Iglesias-Zemmour** (I2M, CNRS)
Symplectic Diffeology and Moment Maps

Physics Education New pedagogical approach in Physics Education

Chairman: Marisa Michelini

Room 407

- 14h30 – 15h00** Valérie **Munier** (UM2)
Learning physics : from the nature and origins of difficulties to an evolution of teaching
- 15h30 – 16h00** Guillaume **Trap** (Palais de la découverte)
Frontiers of popular physics demonstrations
- 16h00 – 16h30** Ricardo **Coelho** (FCUL)
History and Philosophy of Science Can Improve Problem-Solving

Epistemology and Philosophy Logic and Ontology of Physics

Chairman: Jean-Pierre Luminet

Room 408

- 14h30 – 15h05** John **Stachel** (CES)
Do Quanta Need a New Logic?
- 15h05 – 15h40** Jean-Jacques **Szczeciniarz** (Paris Diderot)
Category and Physics
- 15h40 – 16h15** Paolo **Bertozzini** (Thammasat Univ.)
Categorical Operator Algebraic Foundations of Relational Quantum Theory

Frontiers of Fundamental Physics

Chairman: Roland Triay

Room 405

- 14h30 – 15h00** Marc **Lachièze-Rey** (APC)
Dynamics of histories
- 15h00 – 15h30** Mikhail **Altaisky** (IKI)
Continuous wavelet transform in quantum field theory
- 15h30 – 16h00** Alessandro **Bisio** (UNIPV)
From Quantum Cellular Automata to Quantum Field Theory
- 16h00 – 16h30** Igor **Bulyzhenkov** (MIPT)
Field and Matter or Pure Field Physics?

16h30 – 17h00 Coffee break

17h00 – 18h30 Second afternoon parallel sessions

Astroparticle Physics Galactic emissions

Chairman: Elena Amato

Amphi “Charve”

17h00 – 17h20 John Carr (CPPM)
The new Gamma Ray Telescope Observatory: CTA

17h20 – 17h40 Samia Drappeau (IRAP)
A new multiwavelength lepto-hadronic model of astrophysical jet emission

17h40 – 18h00 Thomas Tavernier (APC)
Bright Gamma-ray Pulsars in the Fermi Era : Results and prospects with ground-based telescopes

18h00 – 18h20 Vera Yurievna Sinitsyna (FIAN RAS)
Long-term studies of the Cygnus Region and its objects

Cosmology Physics of the Early Universe

Chairman: Filippo Vernizzi

Amphi “Sciences Naturelles”

17h00 – 17h30 Amanda Weltman (UCT)
Chameleon Cosmology Near and Far

17h30 – 17h50 Vladimir Dzhunushaliev (KazNU)
Gravitational waves attenuation in a non-perturbative spinorial vacuum

17h50 – 18h10 Sandrine Schlögel (UNamur)
Particle like solutions in modified gravity: the Higgs monopoles

High Energy Physics Higgs measurement and BSM

Chairman: Sara Diglio

Amphi “Massiani”

17h00 – 17h30 Heidi Rzehak (Uni Freiburg)
SUSY after LHC run 1

17h30 – 18h00 Sabine Crépé-Renaudin (LPSC)
Searches for heavy resonances at the LHC

Quantum Gravity Renormalization

Chairman: F. Saueressig

Room 404

17h00 – 17h30 Daniel Litim (US)
Do interacting ultraviolet fixed point exist, and if so, what can we do with them?

17h30 – 18h00 Reiko Toriumi (CPT Marseille)
Cosmological constant: its identification as renormalization group invariant scale corresponding to a gravitational condensate

18h00 – 18h30 Tatyana Shestakova (SFEDU)
The role of BRST charge as a generator of gauge transformations in quantization of gauge theories and Gravity

Mathematical Physics Noncommutative Geometry

Chairman: Francesco D’Andrea

Room 406

17h00 – 17h45 Paolo Aschieri (UPO)
Deformation quantization of Noncommutative Principal Bundles

17h45 – 18h15 Guo Chuan Thiang (Univ. of Oxford, Math. Institute)
On the K-theoretic classification of topological phases of matter

Physics Education New pedagogical approach in Physic Education

Chairman: Damien Givry

Room 407

17h00 – 17h30 Alberto Stefanel (UNIUD)
Upper secondary students face optic diffraction using simple experiments and on-line measurements

17h30 – 18h00 Jean-Marc Virey (CPT)
Experimentation of a new pedagogical method in 1st year’s teachings of physics

Epistemology and Philosophy

Chairman: Julien Bernard

Room 408

17h00 – 17h35 Andrei Rodin (IPRAS)
Constructive Identities for Physics

Cocktail at the City Hall – 19h00

Program July, 18

09h00 – 10h30 Plenary session

Plenary Session (broadcast)

Chairman: Roland Triay

Amphi “Sciences Naturelles”

09h00 – 09h30 Laurence **Viennot** (SPC & LDAR)

Co-development of conceptual understanding and critical attitude: an essential condition for physics learning

09h30 – 10h00 John **Stachel** (CES)

It Ain't Necessarily So: Interpretations and Misinterpretations of Quantum Theory

10h00 – 10h30 Joe **Silk** (IAP)

Issues in Galaxy Formation 2014

10h30 – 11h00 Coffee break

11h00 – 12h30 Morning parallel plenary sessions

Plenary Session 1 The dark universe (broadcast)

Chairman: Joe Silk

Amphi “Sciences Naturelles”

11h00 – 11h30 Philippe **Brax** (IPHT)

Dark Energy and Modified Gravity

11h30 – 12h00 Cédric **Deffayet** (IAP and IHÉS)

From DGT to dRGT: a review of “massive gravity” theories

12h00 – 12h30 Kazuya **Koyama** (UoP)

Cosmological tests of gravity

Plenary Session 2

Chairman: Arache Djannati-Atai

Amphi “Massiani”

11h00 – 11h30 Guy **Pelletier** (IPAG)

Relativistic outflows from compact objects and generation of Astroparticles

11h30 – 12h00 Jean-Paul **Blaizot** (IPhT)

Recent experimental results and theoretical developments in Heavy Ion physics

12h00 – 12h30 Veniamin **Berezinsky** (GSSI)

UHECR: Progress and Problems

12h30 – 14h30 Lunch

14h30 – 16h30 First afternoon parallel sessions

Astroparticle Physics Extragalactic emissions

Chairman: Veniamin Berezhinskiy

Amphi "Charve"

14h30 – 15h05 Frédéric **Daigne** (IAP)

Gamma-ray bursts

15h05 – 15h40 Arache **Djannati-Atai** (APC)

The Very High Energy γ -ray Extragalactic Sky

15h40 – 16h05 David **Sanchez** (LAPP)

The extragalactic sky in the Fermi era

16h05 – 16h30 Imen **Al samarai** (IPNO)

Arrival direction distribution of cosmic rays from 100 PeV to the highest energies detected at the Pierre Auger Observatory

Cosmology Dark energy and Dark gravity

Chairman: Philippe Brax

Amphi "Sciences Naturelles"

14h30 – 15h00 Vishagan **Sivanesan** (IAP)

A No Go Theorem for Gallileon like "Odd P-Forms"

15h00 – 15h30 Alexander **Vikman** (LMU)

Cosmology with Mimetic Matter

15h30 – 16h00 Federico **Piazza** (APC)

Dark Energy phenomenology: the effective field theory approach

16h00 – 16h30 Angelo **Tartaglia** (POLITO-DISAT)

The strained state cosmology

High Energy Physics QCD, Heavy Flavors and Heavy Ions

Chairman: Olivier Leroy

Amphi "Massiani"

14h30 – 15h00 Jeremy **Dalseno** (UOB)

"CP violation effects in multibody B decays" on behalf of the LHCb Collaboration

15h00 – 15h30 Sam **Cunliffe** (IC)

Observables and anomalies in $B^0 \rightarrow K^{*0} \mu^+ \mu^-$ decays

15h30 – 16h00 Agostino **Patella** (CERN)

Lattice gauge theories beyond QCD

16h00 – 16h30 John **Bulava** (TCD)

Exotic hadrons in Experiment and on the Lattice

Quantum Gravity Canonical Quantization

Chairman: A. Zipfel

Room 404

14h30 – 15h00 Hal **Haggard** (CPT)

Curved polyhedra

15h00 – 15h30 Jerzy **Lewandowski** (UW)

Exact formulation of the quantum scalar constraint in LQG

15h30 – 16h00 Emanuele **Alesci** (UW)

Quantum Reduced Loop Gravity

16h00 – 16h30 Andrea **Dapor** (FUW)

Coherent State Operators in Cosmology and Gravity

Mathematical Physics QFT and Renormalization

Chairman: Ali Chamseddine

Room 406

14h30 – 15h15 Raimar **Wulkenhaar** (WWU)

Construction of a quantum field theory in four dimensions

15h15 – 16h00 Kasia **Rejzner** (York)

Perturbative algebraic QFT as a universal framework for constructing physically motivated models in quantum field theory

16h00 – 16h30 Sylvain **Carrozza** (CPT)

Renormalization in Tensorial Group Field Theories

Physics Education New pedagogical approach in Physics Education

Chairman: Valérie Munier

Room 407

14h30 – 15h00 Laurence **Viennot** (SPC & LDAR)

From a subtractive to multiplicative approach, two concept-driven interactive pathways on the selective absorption of light

15h00 – 15h30 Benjamin **Couturier** (CERN)

LHCb outreach activities (on behalf of the LHCb Collaboration)

15h30 – 16h00 Olivier **Morizot** (AMU)

Collaborating with Historians of Sciences for a deep and complex rewriting of Physics courses.

16h00 – 16h30 Damien **Givry** (AMU)

Schema or not schema? that could be the question of teacher

Epistemology and Philosophy Symmetry and Gödel's thoughts on Physics

Chairman: Hervé Zwirn

Room 408

14h30 – 15h05 Amilcar **de Queiroz** (IF-UnB & DFTUZ)

Symmetry, Physical Theories and Theory Change

15h05 – 15h40 Gabriella **Crocco** (CEPERC)

Kurt Gödel philosopher: from logic to epistemology

15h40 – 16h15 Eric **Audureau** (CEPERC)

Kurt Gödel's theory of gravitation

Frontiers of Fundamental Physics

Chairman: Bernard Whiting

Room 405

14h30 – 15h00 Alain **Blanchard** (IRAP)

The cosmological constant and quantum vacuum

15h00 – 15h30 Remo **Garattini** (UniBg)

Distorting General Relativity: Gravity's Rainbow and $f(R)$ theories at work

15h30 – 16h00 Zbigniew **Haba** (ITFWroc)

A fluid of diffusing particles and its cosmological behaviour

16h30 – 17h00 Coffee break

17h00 – 18h30 Second afternoon parallel sessions

Astroparticle Physics Extragalactic emissions

Chairman: Vincent Bertin

Amphi "Charve"

- 17h00 – 17h20 Aurore **Mathieu** (CPPM)
Multi-Messenger analysis with the ANTARES High Energy Neutrino Telescope
- 17h20 – 17h40 Chang-Mo **Ryu** (POSTECH)
Magnetic field generated by the Weibel instability
- 17h40 – 18h00 Vera Georgievna **Sinitsyna** (FIAN RAS)
Very high energy gamma-emission of Perseus Cluster

Cosmology Dark energy and Dark gravity

Chairman: Cédric Deffayet

Amphi "Sciences Naturelles"

- 17h00 – 17h30 Filippo **Vernizzi** (IPhT, CEA Saclay)
Healthy theories beyond Horndeski
- 17h30 – 17h50 Lasma **Alberte** (BGU)
Massive Gravity with Two Stückelberg Fields
- 17h50 – 18h10 Chang-Young **Ee** (Sejong Univ.)
Friedmann equation and the emergence of cosmic space
- 18h10 – 18h30 Plamen **Fiziev** (JINR)
Dark Energy and Dark Matter in Stars Physic

High Energy Physics QCD, Heavy Flavors and Heavy Ions

Chairman: Jérôme Charles

Amphi "Massiani"

- 17h00 – 17h30 Kalman **Szabo** (ISC-JSC)
Recent progress in Lattice QCD thermodynamics
- 17h30 – 18h00 Diego **Stocco** (Subatech)
ALICE results in p-Pb collisions at the LHC

Quantum Gravity Canonical Quantization

Chairman: H. Haggard

Room 404

- 17h00 – 17h30 Philipp **Hoehn** (PI)
Quantum formalism for systems with temporally varying discretization
- 17h30 – 18h00 Jędrzej **Swieżewski** (FUW, UW)
Observers diffeomorphism-invariant description of a general relativistic system
- 18h00 – 18h30 Mehdi **Assanioussi** (IFT UW)
Application of the Curvature operator: Matrix Elements and properties of the new Hamiltonian Constraint operator in LQG

Mathematical Physics Noncommutative Geometry and physical models

Chairman: Pierre Martinetti

Room 406

- 17h00 – 17h45 Gandalf **Lechner** (ITP Leipzig)
Hyperbolic PDEs with non-commutative time

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Afriat Alexander (<i>UBO</i>) Weyl's gauge argument	July, 15, 17h00 – 17h35, Room 408, Epistemology and Philosophy
Al samarai Imen (<i>IPNO</i>) Arrival direction distribution of cosmic rays from 100 PeV to the highest energies detected at the Pierre Auger Observatory	July, 18, 16h05 – 16h30, Amphi "Charve", Astroparticle Physics
Alberte Lasma (<i>BGU</i>) Massive Gravity with Two Stückelberg Fields	July, 18, 17h30 – 17h50, Amphi "Sciences Naturelles", Cosmology
Alesci Emanuele (<i>UW</i>) Quantum Reduced Loop Gravity	July, 18, 15h30 – 16h00, Room 404, Quantum Gravity
Alexandrov Sergey (<i>UM2</i>) First order gravity on the light front	July, 15, 15h00 – 15h30, Room 404, Quantum Gravity
Altaisky Mikhail (<i>IKI</i>) Continuous wavelet transform in quantum field theory	July, 17, 15h00 – 15h30, Room 405, Frontiers of Fundamental Physics
Amato Elena (<i>INAF</i>) Particle Acceleration and Radiation in Pulsar Wind Nebulae	July, 17, 16h00 – 16h30, Amphi "Charve", Astroparticle Physics
Amato Elena (<i>INAF</i>) Particle acceleration in astrophysical sources	July, 17, 11h30 – 12h00, Amphi "Massiani", Plenary Session 2
Ari Wahyoedi Seramika (<i>CPT</i>) How many quanta are there in a quantum spacetime?	July, 17, 16h00 – 16h30, Room 404, Quantum Gravity
Aschieri Paolo (<i>UPO</i>) Deformation quantization of Noncommutative Principal Bundles	July, 17, 17h00 – 17h45, Room 406, Mathematical Physics
Assanioussi Mehdi (<i>IFT UW</i>) Application of the Curvature operator: Matrix Elements and properties of the new Hamiltonian Constraint operator in LQG	July, 18, 18h00 – 18h30, Room 404, Quantum Gravity
Astier Pierre (<i>LPNHE</i>) Distances to supernovae: an efficient probe of dark energy	July, 15, 12h00 – 12h30, Amphi "Sciences Naturelles", Plenary Session 1
Audureau Eric (<i>CEPERC</i>) Kurt Gödel's theory of gravitation	July, 18, 15h40 – 16h15, Room 408, Epistemology and Philosophy
Bahr Benjamin (<i>UH</i>) On background-independent renormalization in spin foam models	July, 17, 15h30 – 16h00, Room 404, Quantum Gravity
Barbachoux Cécile (<i>ESPE</i>) Dynamics of pedagogical innovations: roots and developments. Cases of study in Physics and Mathematic	July, 15, 14h30 – 15h00, Room 407, Physics Education
Baussion Eric (<i>IPHC</i>) Future of neutrino based reactor experiments	July, 16, 18h00 – 18h30, Amphi "Sciences Naturelles", Astroparticle Physics, High Energy Physics
Bel Julien (<i>OAB</i>) Probing the matter power spectrum with the galaxy clustering ratio	July, 16, 15h30 – 15h50, Amphi "Charve", Cosmology
Ben Achour Jibril (<i>APC</i>) Analytical continuation of black hole entropy in Loop Quantum Gravity	July, 16, 18h00 – 18h30, Amphi "Massiani", Quantum Gravity
Berezinsky Veniamin (<i>GSSI</i>) UHECR: Progress and Problems	July, 18, 12h00 – 12h30, Amphi "Massiani", Plenary Session 2
Bertozzini Paolo (<i>Thammasat Univ.</i>) Categorical Operator Algebraic Foundations of Relational Quantum Theory	July, 17, 15h40 – 16h15, Room 408, Epistemology and Philosophy
Besnard Fabien (<i>EPF</i>) Causality and Noncommutative Geometry	July, 15, 16h00 – 16h30, Room 406, Mathematical Physics
Bianchi Eugenio (<i>Penn State</i>) Last gasps of a black hole	July, 15, 11h45 – 12h30, Amphi "Charve", Plenary Session 3
Bieliavsky Pierre (<i>UCLouvain</i>) On Drinfel'd twists and their use in non-commutative geometry	July, 17, 14h30 – 15h15, Room 406, Mathematical Physics
Bieliavsky Pierre (<i>UCLouvain</i>) Geometrical aspects of deformation quantization	July, 15, 11h45 – 12h30, Amphi "Massiani", Plenary Session 2
Bisio Alessandro (<i>UNIPV</i>) From Quantum Cellular Automata to Quantum Field Theory	July, 17, 15h30 – 16h00, Room 405, Frontiers of Fundamental Physics
Blaizot Jean-Paul (<i>IPHT</i>) Recent experimental results and theoretical developments in Heavy Ion physics	July, 18, 11h30 – 12h00, Amphi "Massiani", Plenary Session 2
Blanchard Alain (<i>IRAP</i>) Clusters for Cosmology	July, 15, 17h00 – 17h30, Amphi "Sciences Naturelles", Cosmology
Blanchard Alain (<i>IRAP</i>) The cosmological constant and quantum vacuum	July, 18, 14h30 – 15h00, Room 405, Frontiers of Fundamental Physics
Blondel Alain (<i>DPNC University of Geneva</i>) Precision Electroweak Measurements at Future High Energy Colliders	July, 15, 14h30 – 15h00, Amphi "Massiani", High Energy Physics
Bouchet François (<i>IAP</i>) Cosmological results from Planck and LSS	July, 16, 09h00 – 09h45, Amphi "Sciences Naturelles", Plenary Session
Bouquet Frédéric (<i>UPS</i>) Reimagining the teaching of physics in university	July, 15, 15h30 – 16h00, Room 407, Physics Education
Brax Philippe (<i>IPHT</i>) Dark Energy and Modified Gravity	July, 18, 11h00 – 11h30, Amphi "Sciences Naturelles", Plenary Session 1
Brouder Christian (<i>IMPMC</i>) Noncommutative version of Borchers' approach to quantum field theory	July, 15, 15h15 – 16h00, Room 406, Mathematical Physics
Bulava John (<i>TCD</i>) Exotic hadrons in Experiment and on the Lattice	July, 18, 16h00 – 16h30, Amphi "Massiani", High Energy Physics

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Burinskii Alexander (<i>NSI RAS</i>) From Kerr-Newman Black Hole to Spinning Particle: Where is There Hidden the Dirac Equation?	July, 15, 14h30 – 15h00, Room 405, Frontiers of Fundamental Physics	Dapor Andrea (<i>FUW</i>) Coherent State Operators in Cosmology and Gravity	July, 18, 16h00 – 16h30, Room 404, Quantum Gravity
Buskalic Damir (<i>UdS / LAPP</i>) No magic wand for teaching physics	July, 16, 17h30 – 18h00, Room 407, Physics Education	de Queiroz Amilcar (<i>IF-UnB & DFTUZ</i>) Symmetry, Physical Theories and Theory Change	July, 18, 14h30 – 15h05, Room 408, Epistemology and Philosophy
Cabrera Anatael (<i>APC</i>) Neutrino Oscillations: Experimental Review	July, 16, 15h00 – 15h30, Amphi “Sciences Naturelles”, Astroparticle Physics, High Energy Physics	Deffayet Cédric (<i>IAP and IHÉS</i>) From DGT to dRGT: a review of “massive gravity” theories	July, 18, 11h30 – 12h00, Amphi “Sciences Naturelles”, Plenary Session 1
Caprini Chiara (<i>IPhT</i>) Magnetic field generation during inflation	July, 17, 15h40 – 16h00, Amphi “Sciences Naturelles”, Cosmology	Di Bari Pasquale (<i>UoS</i>) Leptogenesis and low energy neutrino data	July, 16, 15h30 – 16h00, Amphi “Sciences Naturelles”, Astroparticle Physics, High Energy Physics
Carr John (<i>CPPM</i>) The new Gamma Ray Telescope Observatory: CTA	July, 17, 17h00 – 17h20, Amphi “Charve”, Astroparticle Physics	Diaferio Antonaldo (<i>UniTo</i>) Measuring the growth of galaxy clusters	July, 15, 17h30 – 18h00, Amphi “Sciences Naturelles”, Cosmology
Carrozza Sylvain (<i>CPT</i>) Renormalization in Tensorial Group Field Theories	July, 18, 16h00 – 16h30, Room 406, Mathematical Physics	Djannati-Atai Arache (<i>APC</i>) The Very High Energy γ -ray Extragalactic Sky	July, 18, 15h05 – 15h40, Amphi “Charve”, Astroparticle Physics
Catren Gabriel (<i>SPHERE</i>) On the Relation Between Gauge and Phase Symmetries	July, 15, 17h35 – 18h10, Room 408, Epistemology and Philosophy	Drappeau Samia (<i>IRAP</i>) A new multiwavelength lepto-hadronic model of astrophysical jet emission	July, 17, 17h20 – 17h40, Amphi “Charve”, Astroparticle Physics
Chamseddine Ali (<i>AUB and IHES</i>) Geometric Unification	July, 15, 11h00 – 11h45, Amphi “Massiani”, Plenary Session 2	Dvoeglazov Valeriy (<i>UAZ</i>) Energy-Momentum Tensor in Electromagnetic Theory and Gravitation from Relativistic Quantum Equations	July, 16, 14h30 – 15h00, Room 405, Frontiers of Fundamental Physics
Chamseddine Ali (<i>AUB and IHES</i>) Noncommutative Geometry and Physics	July, 16, 14h30 – 15h15, Room 406, Mathematical Physics	Dzhunushaliev Vladimir (<i>KazNU</i>) Gravitational waves attenuation in a non-perturbative spinorial vacuum	July, 17, 17h30 – 17h50, Amphi “Sciences Naturelles”, Cosmology
Cho Inyong (<i>SeoulTech</i>) Inflationary perturbations in Eddington-inspired Born-Infeld gravity	July, 17, 15h20 – 15h40, Amphi “Sciences Naturelles”, Cosmology	Eckstein Michal (<i>UJ</i>) Causal structure for noncommutative geometry	July, 16, 16h00 – 16h30, Room 406, Mathematical Physics
Coelho Ricardo (<i>FCUL</i>) History and Philosophy of Science Can Improve Problem-Solving	July, 17, 16h00 – 16h30, Room 407, Physics Education	Ee Chang-Young (<i>Sejong Univ.</i>) Friedmann equation and the emergence of cosmic space	July, 18, 17h50 – 18h10, Amphi “Sciences Naturelles”, Cosmology
Couturier Benjamin (<i>CERN</i>) LHCb outreach activities (on behalf of the LHCb Collaboration)	July, 18, 15h00 – 15h30, Room 407, Physics Education	Famaey Benoit (<i>UNISTRA</i>) Dark Matter in the Milky Way	July, 15, 14h30 – 15h03, Amphi “Charve”, Astroparticle Physics
Coyle Paschal (<i>CPPM</i>) Mediterranean Neutrino Telescopes	July, 16, 17h00 – 17h30, Amphi “Sciences Naturelles”, Astroparticle Physics, High Energy Physics	Feix Martin (<i>Technion</i>) Tracing the cosmic velocity field at $z \sim 0.1$ from galaxy luminosities in the SDSS DR7	July, 15, 15h30 – 15h50, Amphi “Sciences Naturelles”, Cosmology
Crocco Gabriella (<i>CEPERC</i>) Kurt Gödel philosopher: from logic to epistemology	July, 18, 15h05 – 15h40, Room 408, Epistemology and Philosophy	Ferté Agnès (<i>IAS</i>) Constraints on chiral gravity through the CMB polarization	July, 16, 17h20 – 17h40, Amphi “Charve”, Cosmology
Crépé-Renaudin Sabine (<i>LPSC</i>) Searches for heavy resonances at the LHC	July, 17, 17h30 – 18h00, Amphi “Massiani”, High Energy Physics	Fiziev Plamen (<i>JINR</i>) Dark Energy and Dark Matter in Stars Physic	July, 18, 18h10 – 18h30, Amphi “Sciences Naturelles”, Cosmology
Cunliffe Sam (<i>IC</i>) Observables and anomalies in $B^0 \rightarrow K^{*0} \mu^+ \mu^-$ decays	July, 18, 15h00 – 15h30, Amphi “Massiani”, High Energy Physics	Fullana i Alfonso Màrius Josep (<i>IMM - UPV</i>) Some remarks on new numerical estimations of the Rees-Sciama effect	July, 15, 16h10 – 16h30, Amphi “Sciences Naturelles”, Cosmology
D’Andrea Francesco (<i>UNINA</i>) Vector bundles on the noncommutative torus from cochain quantization	July, 15, 17h00 – 17h45, Room 406, Mathematical Physics	Furey Cohl (<i>PI</i>) Charge Quantization from a Number Operator	July, 16, 15h00 – 15h30, Room 405, Frontiers of Fundamental Physics
Daigne Frédéric (<i>IAP</i>) Gamma-ray bursts	July, 18, 14h30 – 15h05, Amphi “Charve”, Astroparticle Physics	Garattini Remo (<i>UniBg</i>) Distorting General Relativity: Gravity’s Rainbow and f(R) theories at work	July, 18, 15h00 – 15h30, Room 405, Frontiers of Fundamental Physics
		Gascon Jules (<i>IPNL</i>) Review of Dark Matter Direct Searches	July, 15, 15h03 – 15h36, Amphi “Charve”, Astroparticle Physics

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Givry Damien (<i>AMU</i>) Schema or not schema? that could be the question of teacher	July, 18, 16h00 – 16h30, Room 407, Physics Education	Kauer Nikolas (<i>RHUL</i>) Off-shell Higgs signal and total width determination at the LHC	July, 17, 16h00 – 16h30, Amphi “Massiani”, High Energy Physics
Goldwurm Andrea (<i>APC</i>) High Energy Phenomena at the Center of our Galaxy	July, 17, 15h30 – 16h00, Amphi “Charve”, Astroparticle Physics	Khmelnitsky Andrei (<i>BGU</i>) Scalar field dark matter and pulsar timing observations	July, 16, 18h00 – 18h20, Amphi “Charve”, Cosmology
Grain Julien (<i>IAS</i>) A brief overview of loop quantum cosmology and its potential observational signatures	July, 16, 14h30 – 15h00, Amphi “Massiani”, Quantum Gravity	Kouneiher Joseph (<i>UNS</i>) Higgs fields, Yang-Mills Quantized theories and the Cohomological origine of the mass	July, 16, 16h00 – 16h30, Room 405, Frontiers of Fundamental Physics
Greiner Walter (<i>FIAS</i>) There are no black holes: Pseudo-Complex General Relativity From Einstein to Zweistein	July, 15, 11h00 – 11h45, Amphi “Charve”, Plenary Session 3	Kouneiher Joseph (<i>UNS</i>) Roots and prespective of Bergmann-Einstein scalar tensor theory: the unpublished paper	July, 15, 15h40 – 16h15, Room 408, Epistemology and Philosophy
Guzzo Luigi (<i>INAF - OA Brera</i>) Cosmology with Galaxy Redshift Surveys	July, 16, 12h00 – 12h30, Amphi “Charve”, Plenary Session 1	Koyama Kazuya (<i>UoP</i>) Cosmological tests of gravity	July, 18, 12h00 – 12h30, Amphi “Sciences Naturelles”, Plenary Session 1
Haba Zbigniew (<i>ITFWroc</i>) A fluid of diffusing particles and its cosmological behaviour	July, 18, 15h30 – 16h00, Room 405, Frontiers of Fundamental Physics	Lachièze-Rey Marc (<i>APC</i>) Dynamics of histories	July, 17, 14h30 – 15h00, Room 405, Frontiers of Fundamental Physics
Haggard Hal (<i>CPT</i>) Curved polyhedra	July, 18, 14h30 – 15h00, Room 404, Quantum Gravity	Lacroix Thomas (<i>IAP</i>) Fitting the Fermi-LAT GeV excess: on the importance of the propagation of electrons from dark matter	July, 15, 16h10 – 16h30, Amphi “Charve”, Astroparticle Physics
Halzen Francis (<i>WIPAC</i>) IceCube and the Discovery of High-Energy Cosmic Neutrinos	July, 16, 12h00 – 12h30, Amphi “Sciences Naturelles”, Plenary Session 2	Lechner Gandalf (<i>ITP Leipzig</i>) Hyperbolic PDEs with non-commutative time	July, 18, 17h00 – 17h45, Room 406, Mathematical Physics
Haro Jaume (<i>UPC</i>) Matter Bounce Scenario in F(T) gravity	July, 16, 15h30 – 16h00, Amphi “Massiani”, Quantum Gravity	Lewandowski Jerzy (<i>UW</i>) Background independence of GR and in LQG	July, 17, 11h00 – 11h45, Amphi “Sciences Naturelles”, Plenary Session 3
Heavens Alan (<i>ICIC</i>) Weak gravitational lensing	July, 16, 11h00 – 11h30, Amphi “Charve”, Plenary Session 1	Lewandowski Jerzy (<i>UW</i>) Exact formulation of the quantum scalar constraint in LQG	July, 18, 15h00 – 15h30, Room 404, Quantum Gravity
Heron Paula (<i>Univ. Washington</i>) Designing and evaluating new approaches to instruction	July, 15, 16h00 – 16h30, Room 407, Physics Education	Linsefors Linda (<i>LPSC</i>) LQC on curved FLRW space time	July, 16, 16h00 – 16h30, Amphi “Massiani”, Quantum Gravity
Hoehn Philipp (<i>PI</i>) A novel approach to characterising quantum theory based on limited information and complementarity	July, 16, 15h05 – 15h40, Room 408, Epistemology and Philosophy	Litim Daniel (<i>US</i>) Do interacting ultraviolet fixed point exist, and if so, what can we do with them?	July, 17, 17h00 – 17h30, Room 404, Quantum Gravity
Hoehn Philipp (<i>PI</i>) Quantum formalism for systems with temporally varying discretization	July, 18, 17h00 – 17h30, Room 404, Quantum Gravity	Livine Etera (<i>ENS Lyon</i>) Spinorial Path Integral for Loop Gravity: Coherent states and Spinfoam symmetries	July, 15, 15h30 – 16h00, Room 404, Quantum Gravity
Hoelbling Christian (<i>Bergische Universität Wuppertal</i>) Physical predicions from lattice QCD	July, 17, 11h00 – 11h30, Amphi “Massiani”, Plenary Session 2	Lizzi Fedele (<i>UNINA</i>) Noncommutative Geometry, the Spectral Action and Fundamental Symmetries	July, 15, 14h30 – 15h15, Room 406, Mathematical Physics
Hui Lam (<i>Columbia University</i>) Symmetries in Large Scale Structure	July, 16, 15h00 – 15h30, Amphi “Charve”, Cosmology	Luminet Jean-Pierre (<i>LUTH</i>) Lemaître’s Big Bang	July, 15, 14h30 – 15h05, Room 408, Epistemology and Philosophy
Iglesias-Zemmour Patrick (<i>I2M, CNRS</i>) Symplectic Diffeology and Moment Maps	July, 17, 15h45 – 16h30, Room 406, Mathematical Physics	López-Corredoira Martín (<i>IAC</i>) The Twilight of the Scientific Age	July, 15, 15h05 – 15h40, Room 408, Epistemology and Philosophy
Ilic Stéphane (<i>IRAP</i>) The baryon fraction in clusters and scaling relations in LCDM from X-ray and Planck data	July, 15, 18h00 – 18h20, Amphi “Sciences Naturelles”, Cosmology	López-Corredoira Martín (<i>IAC</i>) Tests on the Expansion of the Universe	July, 16, 17h40 – 18h00, Amphi “Charve”, Cosmology
Joshi Kiran (<i>UoM</i>) Measurement of EW production of $Z + 2j$ at the LHC	July, 15, 16h00 – 16h30, Amphi “Massiani”, High Energy Physics	Mader Wolfgang (<i>IKTP</i>) Searches for BSM Higgs bosons at LHC	July, 17, 15h30 – 16h00, Amphi “Massiani”, High Energy Physics
		Magni Stefano (<i>LUPM</i>) Revisiting the escape speed impact on dark matter direct detection	July, 15, 17h00 – 17h20, Amphi “Charve”, Astroparticle Physics

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Marciano Antonino (<i>Fudan</i>) Matter-Bounce Spin-Cosmology and consistency with BICEP2 data	July, 17, 16h00 – 16h20, Amphi “Sciences Naturelles”, Cosmology	Nusser Adi (<i>IIT</i>) Dynamics of the Cosmic Web	July, 15, 11h30 – 12h00, Amphi “Sciences Naturelles”, Plenary Session 1
Marcowith Alexandre (<i>LUPM</i>) Cosmic Ray propagation in the interstellar medium	July, 17, 15h00 – 15h30, Amphi “Charve”, Astroparticle Physics	Oeckl Robert (<i>CCM-UNAM</i>) Quantum Gravity and the Foundations of Quantum Theory	July, 15, 17h30 – 18h00, Room 404, Quantum Gravity
Marozzi Giovanni (<i>DPT - Unige</i>) The value of H_0 in the inhomogeneous Universe	July, 16, 15h50 – 16h10, Amphi “Charve”, Cosmology	Oriti Daniele (<i>AEI</i>) A quantum field theory for the atoms of space	July, 17, 14h30 – 15h00, Room 404, Quantum Gravity
Martinetti Pierre (<i>UNINA</i>) Geometry with a cut-off	July, 15, 17h45 – 18h30, Room 406, Mathematical Physics	Padilla Antonio (<i>UoN</i>) Sequestering the Standard Model Vacuum Energy	July, 15, 17h30 – 18h00, Room 405, Frontiers of Fundamental Physics
Martin Jérôme (<i>IAP</i>) Inflation after Planck & BICEP2	July, 17, 12h00 – 12h30, Amphi “Charve”, Plenary Session 1	Palazzo Antonio (<i>MPI</i>) Global status of neutrino oscillations	July, 16, 14h30 – 15h00, Amphi “Sciences Naturelles”, Astroparticle Physics, High Energy Physics
Matarrese Sabino (<i>UNIPD</i>) Primordial non-Gaussianity, present status and future prospects	July, 17, 11h30 – 12h00, Amphi “Charve”, Plenary Session 1	Patella Agostino (<i>CERN</i>) Lattice gauge theories beyond QCD	July, 18, 15h30 – 16h00, Amphi “Massiani”, High Energy Physics
Mathieu Aurore (<i>CPPM</i>) Multi-Messenger analysis with the ANTARES High Energy Neutrino Telescope	July, 18, 17h00 – 17h20, Amphi “Charve”, Astroparticle Physics	Pelletier Guy (<i>IPAG</i>) Relativistic outflows from compact objects and generation of Astroparticles	July, 18, 11h00 – 11h30, Amphi “Massiani”, Plenary Session 2
Mayburov Sergey (<i>FIAN</i>) Fuzzy Topology, Quantization and Gauge Fields	July, 15, 16h00 – 16h30, Room 405, Frontiers of Fundamental Physics	Pello Roser (<i>IRAP</i>) Looking for the first star-forming galaxies in the univers	July, 15, 14h30 – 15h00, Amphi “Sciences Naturelles”, Cosmology
Mescia Federico (<i>UB</i>) Review of Flavour Physics	July, 17, 12h00 – 12h30, Amphi “Massiani”, Plenary Session 2	Perez Alejandro (<i>CPT</i>) Black hole entropy and entanglement of Planckian degrees of freedom	July, 16, 17h30 – 18h00, Amphi “Massiani”, Quantum Gravity
Michelini Marisa (<i>UniUD</i>) Teaching modern physics in secondary school	July, 16, 15h30 – 16h00, Room 407, Physics Education	Piazza Federico (<i>APC</i>) Dark Energy phenomenology: the effective field theory approach	July, 18, 15h30 – 16h00, Amphi “Sciences Naturelles”, Cosmology
Michel Jean-Philippe (<i>ULg</i>) Higher Symmetries of Laplace and Dirac operators - towards supersymmetries	July, 17, 15h15 – 15h45, Room 406, Mathematical Physics	Pinamonti Nicola (<i>Univ. of Genova</i>) Influence of quantum matter fluctuations on the expansion parameter of timelike geodesics	July, 16, 17h00 – 17h45, Room 406, Mathematical Physics
Milgrom Elie (<i>UCL</i>) Less teaching yields better learning	July, 15, 15h00 – 15h30, Room 407, Physics Education	Pokorski Stefan (<i>FUW</i>) Status of the BSM scenarios	July, 16, 09h45 – 10h30, Amphi “Sciences Naturelles”, Plenary Session
Mirabel Felix (<i>CEA-Saclay</i>) High energy sources during the re-ionization epoch of the universe	July, 15, 15h00 – 15h30, Amphi “Sciences Naturelles”, Cosmology	Ptuskin Vladimir (<i>IPST</i>) Origin of Cosmic Rays	July, 17, 10h00 – 10h30, Amphi “Sciences Naturelles”, Plenary Session
Mishima Satoshi (<i>University of Rome, La Sapienza</i>) Constraints on Higgs physics from EW precision measurements	July, 15, 15h00 – 15h30, Amphi “Massiani”, High Energy Physics	Pujol Arnau (<i>ICE-IEEC/CSIC</i>) The effects of assembly bias on galaxy clustering predictions	July, 16, 17h00 – 17h20, Amphi “Charve”, Cosmology
Mollitor Pol (<i>LAM</i>) Cosmological N-body+hydro simulations of spiral galaxies and dark matter detection	July, 15, 17h40 – 18h00, Amphi “Charve”, Astroparticle Physics	Pullin Jorge (<i>LSU</i>) Hawking radiation in loop quantum gravity	July, 16, 11h00 – 11h45, Amphi “Massiani”, Plenary Session 3
Morizot Olivier (<i>AMU</i>) Collaborating with Historians of Sciences for a deep and complex rewriting of Physics courses.	July, 18, 15h30 – 16h00, Room 407, Physics Education	Quevillon Jérémie (<i>LPT Orsay</i>) Constraints on BSM physics through the Higgs couplings	July, 17, 14h30 – 15h00, Amphi “Massiani”, High Energy Physics
Munier Valérie (<i>UM2</i>) Learning physics : from the nature and origins of difficulties to an evolution of teaching	July, 17, 14h30 – 15h00, Room 407, Physics Education	Ramazanov Sabir (<i>ULB</i>) Probing primordial statistical anisotropy with WMAP and Planck data	July, 16, 16h10 – 16h30, Amphi “Charve”, Cosmology
Nadal Jordi (<i>II. Physikalisches Institut</i>) Top production at the LHC	July, 15, 17h00 – 17h30, Amphi “Massiani”, High Energy Physics	Rejzner Kasia (<i>York</i>) Perturbative algebraic QFT as a universal framework for constructing physically motivated models in quantum field theory	July, 18, 15h15 – 16h00, Room 406, Mathematical Physics
		Rodin Andrei (<i>IPRAS</i>) Constructive Identities for Physics	July, 17, 17h00 – 17h35, Room 408, Epistemology and Philosophy

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Rosanvallon Jérôme (<i>Paris 7</i>)	July, 16, 15h40 – 16h15, Room 408, Epistemology and Philosophy	Sivanesan Vishagan (<i>Iap</i>)	July, 18, 14h30 – 15h00, Amphi "Sciences Naturelles", Cosmology
Quantization, spatiotemporalization and pure variation		A No Go Theorem for Gallileon like "Odd P-Forms"	
Rouan Daniel (<i>LESIA</i>)	July, 16, 14h30 – 15h00, Room 407, Physics Education	Spallicci Alessandro (<i>UO, OSUC</i>)	July, 15, 15h30 – 16h00, Room 405, Frontiers of Fundamental Physics
Soon 20 years of "La Main à La Pâte", an international model for inquiry-based science education in elementary school		Solar wind test of the de Broglie-Proca's massive photon with Cluster multi-spacecraft data	
Rovelli Carlo (<i>CPT</i>)	July, 17, 09h00 – 09h30, Amphi "Sciences Naturelles", Plenary Session	Spergel David (<i>Princeton</i>)	July, 16, 11h30 – 12h00, Amphi "Charve", Plenary Session 1
Loop Quantum Gravity		The Signature of Low Redshift Large-Scale Structure in the Cosmic Microwave Background	
Rudolph Alexander (<i>Cal Poly Pomona</i>)	July, 16, 15h00 – 15h30, Room 407, Physics Education	Sphicas Paraskevas (<i>CERN and Athens</i>)	July, 15, 09h30 – 10h00, Amphi "Sciences Naturelles", Plenary Session
Introduction of interactive learning into French university physics classrooms		Status of HEP after the LHC Run 1	
Ryu Chang-Mo (<i>POSTECH</i>)	July, 16, 17h00 – 17h30, Room 407, Physics Education	Stachel John (<i>CES</i>)	July, 18, 09h30 – 10h00, Amphi "Sciences Naturelles", Plenary Session
Design and build physics lab course for general physics program in college		It Ain't Necessarily So: Interpretations and Misinterpretations of Quantum Theory	
Ryu Chang-Mo (<i>POSTECH</i>)	July, 18, 17h20 – 17h40, Amphi "Charve", Astroparticle Physics	Stachel John (<i>CES</i>)	July, 17, 14h30 – 15h05, Room 408, Epistemology and Philosophy
Magnetic field generated by the Weibel instability		Do Quanta Need a New Logic?	
Rzehak Heidi (<i>Uni Freiburg</i>)	July, 17, 17h00 – 17h30, Amphi "Massiani", High Energy Physics	Starobinsky Alexei (<i>Landau ITP</i>)	July, 17, 09h30 – 10h00, Amphi "Sciences Naturelles", Plenary Session
SUSY after LHC run 1		Investigating inflation and super-high-energy physics with new CMB data	
Sanchez David (<i>LAPP</i>)	July, 18, 15h40 – 16h05, Amphi "Charve", Astroparticle Physics	Stefanel Alberto (<i>UNIUD</i>)	July, 17, 17h00 – 17h30, Room 407, Physics Education
The extragalactic sky in the Fermi era		Upper secondary students face optic diffraction using simple experiments and on-line measurements	
Sarazin Xavier (<i>LAL</i>)	July, 16, 16h00 – 16h30, Amphi "Sciences Naturelles", Astroparticle Physics, High Energy Physics	Steigerwald Heinrich (<i>AMU</i>)	July, 15, 15h50 – 16h10, Amphi "Sciences Naturelles", Cosmology
Review of neutrinoless double beta decay search		Probing non-standard gravity with the growth index of cosmological perturbations	
Sarkar Subir (<i>UOXF & NBI</i>)	July, 15, 10h00 – 10h30, Amphi "Sciences Naturelles", Plenary Session	Stephan Christoph (<i>UP</i>)	July, 16, 17h45 – 18h30, Room 406, Mathematical Physics
Discovering dark matter		Model building in almost-commutative geometry	
Sarkar Subir (<i>UOXF & NBI</i>)	July, 16, 14h30 – 15h00, Amphi "Charve", Cosmology	Stocco Diego (<i>Subatech</i>)	July, 18, 17h30 – 18h00, Amphi "Massiani", High Energy Physics
Galactic foregrounds for the CMB		ALICE results in p-Pb collisions at the LHC	
Saueressig Frank (<i>IMAPP</i>)	July, 16, 17h00 – 17h30, Amphi "Massiani", Quantum Gravity	Sverdlov Roman (<i>IISER</i>)	July, 16, 17h35 – 18h10, Room 408, Epistemology and Philosophy
Black holes in Asymptotically Safe Gravity		Describing many-particle QM as well as QFT in terms of "single particle" QM with one extra dimension	
Schlögel Sandrine (<i>UNamur</i>)	July, 17, 17h50 – 18h10, Amphi "Sciences Naturelles", Cosmology	Swieżewski Jędrzej (<i>FUW, UW</i>)	July, 18, 17h30 – 18h00, Room 404, Quantum Gravity
Particle like solutions in modified gravity: the Higgs monopoles		Observers diffeomorphism-invariant description of a general relativistic system	
Senatore Leonardo (<i>Stanford</i>)	July, 17, 14h30 – 15h00, Amphi "Sciences Naturelles", Cosmology	Szabo Kalman (<i>ISC-JSC</i>)	July, 18, 17h00 – 17h30, Amphi "Massiani", High Energy Physics
Inflation Physics from the CMB and LSS		Recent progress in Lattice QCD thermodynamics	
Shestakova Tatyana (<i>SFEDU</i>)	July, 17, 18h00 – 18h30, Room 404, Quantum Gravity	Szczeciniarz Jean-Jacques (<i>Paris Diderot</i>)	July, 17, 15h05 – 15h40, Room 408, Epistemology and Philosophy
The role of BRST charge as a generator of gauge transformations in quantization of gauge theories and Gravity		Category and Physics	
Sidharth Burra (<i>BMBS</i>)	July, 16, 11h45 – 12h30, Amphi "Massiani", Plenary Session 3	Tao Li (<i>LAPP</i>)	July, 15, 17h20 – 17h40, Amphi "Charve", Astroparticle Physics
A Test Bed for High Energy Physics		Measurement of leptons related quantities in AMS	
Silk Joe (<i>IAP</i>)	July, 18, 10h00 – 10h30, Amphi "Sciences Naturelles", Plenary Session	Tartaglia Angelo (<i>POLITO-DISAT</i>)	July, 18, 16h00 – 16h30, Amphi "Sciences Naturelles", Cosmology
Issues in Galaxy Formation 2014		The strained state cosmology	
Sinitsyna Vera Georgievna (<i>FIAN RAS</i>)	July, 18, 17h40 – 18h00, Amphi "Charve", Astroparticle Physics	Tavernier Thomas (<i>APC</i>)	July, 17, 17h40 – 18h00, Amphi "Charve", Astroparticle Physics
Very high energy gamma-emission of Perseus Cluster		Bright Gamma-ray Pulsars in the Fermi Era : Results and prospects with ground-based telescopes	
Sinitsyna Vera Yurievna (<i>FIAN RAS</i>)	July, 17, 18h00 – 18h20, Amphi "Charve", Astroparticle Physics	Thiang Guo Chuan (<i>Univ. of Oxford, Math. Institute</i>)	July, 17, 17h45 – 18h15, Room 406, Mathematical Physics
Long-term studies of the Cygnus Region and its objects		On the K-theoretic classification of topological phases of matter	

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Thürigen Johannes (<i>AEI</i>) Group field theories generating polyhedral complexes	July, 17, 15h00 – 15h30, Room 404, Quantum Gravity	Watts Gordon (<i>UW, Seattle</i>) Top quark mass measurements at hadron colliders	July, 15, 17h30 – 18h00, Amphi "Massiani", High Energy Physics
Toriumi Reiko (<i>CPT Marseille</i>) Cosmological constant: its identification as renormalization group invariant scale corresponding to a gravitational condensate	July, 17, 17h30 – 18h00, Room 404, Quantum Gravity	Weltman Amanda (<i>UCT</i>) Chameleon Cosmology Near and Far	July, 17, 17h00 – 17h30, Amphi "Sciences Naturelles", Cosmology
Tosini Alessandro (<i>UNIPV</i>) Informational features of Fermionic systems	July, 15, 17h00 – 17h30, Room 405, Frontiers of Fundamental Physics	Westhoff Susanne (<i>PITT PACC</i>) The Top-Quark Charge Asymmetry – Testing Strong Interactions and More	July, 15, 18h00 – 18h30, Amphi "Massiani", High Energy Physics
Trap Guillaume (<i>Palais de la découverte</i>) Frontiers of popular physics demonstrations	July, 17, 15h30 – 16h00, Room 407, Physics Education	Whiting Bernard (<i>UF</i>) High precision gravitational self-force calculations and post-Newtonian implications	July, 17, 11h45 – 12h30, Amphi "Sciences Naturelles", Plenary Session 3
Triay Roland (<i>CPT</i>) Opening	July, 15, 08h45 – 09h00, Amphi "Sciences Naturelles", Plenary Session	Wieland Wolfgang (<i>IGC</i>) Loop gravity from a spinorial action	July, 15, 16h00 – 16h30, Room 404, Quantum Gravity
Uchiyama Yasunobu (<i>Rikkyo Univ.</i>) High Energy and Very High Energy Gamma-rays from Galactic Particle Accelerators	July, 17, 14h30 – 15h00, Amphi "Charve", Astroparticle Physics	Williamson John (<i>UoG</i>) A new theory of light and matter	July, 16, 15h30 – 16h00, Room 405, Frontiers of Fundamental Physics
Ullio Piero (<i>SISSA</i>) Indirect dark matter detection: recent results and perspectives	July, 15, 15h36 – 16h09, Amphi "Charve", Astroparticle Physics	Wilson-Ewing Edward (<i>LSU</i>) The Matter Bounce Scenario in Loop Quantum Cosmology	July, 16, 15h00 – 15h30, Amphi "Massiani", Quantum Gravity
Urakawa Yuko (<i>Nagoya</i>) Infrared physics in inflation and primordial perturbations	July, 17, 15h00 – 15h20, Amphi "Sciences Naturelles", Cosmology	Witkowski Nadine (<i>UPMC</i>) Horizons in Physics Education: a network to improve the attraction of physics	July, 16, 16h00 – 16h30, Room 407, Physics Education
Valle Jose W.F. (<i>IFIC</i>) Neutrino pathways to cosmology	July, 16, 11h00 – 11h30, Amphi "Sciences Naturelles", Plenary Session 2	Wulkenhaar Raimar (<i>WWU</i>) Construction of a quantum field theory in four dimensions	July, 18, 14h30 – 15h15, Room 406, Mathematical Physics
van Suijlekom Walter (<i>RU</i>) Inner perturbations in noncommutative geometry	July, 16, 15h15 – 16h00, Room 406, Mathematical Physics	Zaro Marco (<i>LPTHE, UPMC</i>) (Getting ready for) precision physics at hadron colliders	July, 15, 15h30 – 16h00, Amphi "Massiani", High Energy Physics
Veneziano Gabriele (<i>CdF</i>) Personal reflections on two success stories	July, 15, 09h00 – 09h30, Amphi "Sciences Naturelles", Plenary Session	Zipfel Antonia (<i>FUW</i>) Plebanski sectors of the Lorentzian 4-simplex amplitude	July, 15, 17h00 – 17h30, Room 404, Quantum Gravity
Vernizzi Filippo (<i>IPhT, CEA Saclay</i>) Healthy theories beyond Horndeski	July, 18, 17h00 – 17h30, Amphi "Sciences Naturelles", Cosmology	Zwirn Hervé (<i>CNRS / CVT</i>) Decoherence and the measurement problem	July, 16, 14h30 – 15h05, Room 408, Epistemology and Philosophy
Vidotto Francesca (<i>IMAPP</i>) Atomism and Relationalism as guiding principles for Quantum Gravity	July, 16, 17h00 – 17h35, Room 408, Epistemology and Philosophy		
Viennot Laurence (<i>SPC & LDAR</i>) Co-development of conceptual understanding and critical attitude: an essential condition for physics learning	July, 18, 09h00 – 09h30, Amphi "Sciences Naturelles", Plenary Session		
Viennot Laurence (<i>SPC & LDAR</i>) From a subtractive to multiplicative approach, two concept-driven interactive pathways on the selective absorption of light	July, 18, 14h30 – 15h00, Room 407, Physics Education		
Vikman Alexander (<i>LMU</i>) Cosmology with Mimetic Matter	July, 18, 15h00 – 15h30, Amphi "Sciences Naturelles", Cosmology		
Virey Jean-Marc (<i>CPT</i>) Experimentation of a new pedagogical method in 1 st year's teachings of physics	July, 17, 17h30 – 18h00, Room 407, Physics Education		
Volpe Cristina (<i>APC</i>) Recent advances in neutrino astrophysics	July, 16, 17h30 – 18h00, Amphi "Sciences Naturelles", Astroparticle Physics, High Energy Physics		
Wands David (<i>ICG</i>) Cosmic inflation and primordial structure	July, 17, 11h00 – 11h30, Amphi "Charve", Plenary Session 1		