



La Thuile 2017

**Scientific Programme**

# SCIENTIFIC PROGRAMME

**Monday, March 6**

## I. Cosmology and Astroparticle Physics

**8.30-11.30**

Physics of Gravitational Waves	Valeria Ferrari, Roma
Towards Study of Gravitational Wave in Space	Gudrun Wanner, Hannover
<i>coffee break</i>	
On the Relaxation of the Cosmological Constant	Enrico Trincherini, Pisa
GeV Gamma-Rays from the Galactic Center: Diffuse Emission, Unresolved Sources and Dark Matter Contributions	Dmitry Malyshev, Erlangen
Primordial Black Hole Formation	Alexander Dolgov, Ferrara
Cosmology with the CMB: Planck and Beyond	Paolo Natoli, Ferrara

## II. Neutrino Physics

**16.00-19:00**

Overview on Neutrino Electromagnetic Properties	Alexander Studenikin, MSU /JINR
More Results from the OPERA Experiment	Giuliana Galati, Napoli
Recent Progress in Neutrino Physics: a Theoretical Overview	Pilar Hernandez IFIC
Newest NOVA Results on Theta_13 and CPV in Neutrino Sector	Evan Niner, FNAL
Results and Perspectives from T2K on CPV in Neutrino Sector	Anna Dabrowska, Cracow
Short Distance Neutrino Oscillations with Borexino	Barbara Caccianiga, Milano
Measurement of the PMNS Matrix Element Theta_13 and CPV Parameters with Double Chooz	Anthony Onillon, APC

**Tuesday, March 7**

## III. Dark Matter Searches

**8.30-11-30**

Theoretical Models for Dark Matter	Giorgio Busoni, Melbourne
Dark Matter Models Beyond the WIMP Paradigm	Michael Baker, Mainz
Dark Matter and Composite Weak Bosons	Harald Fritzsch, Munich
<i>coffee break</i>	
Status and Perspectives of the DARKSIDE Experiment at LNGS	Paolo Agnes, Paris
Status Report of the Xenon1T Experiment	Julien Masbou, Subatech
Prospects for Direct Dark-Matter Detection and 0n2b Experiments	Laura Baudis, Zurich

## IV. Dark Matter and Neutrino Physics

**16.30-17:20**

GERDA Search for Neutrinoless DB Decay	Marcin Misiaszek, Krakow
Status and Perspectives of CUORE Experiment at LNGS	Vivek Singh, Berkeley

## Young Scientists Forum

**17:20-18:35**

RH Neutrinos: Dark Matter and LFV	Meziane Chekkal, Oran
Inclusive Photon Cross Section at 13 TeV (ATLAS)	Ana Rosario Cueto Gomez, Madrid
Observation of the Decay $\chi_{1b} \rightarrow p\bar{K}$	Abhijit Mathad, Warwick
Observation of the Rare Decays $\Lambda_b \rightarrow p \pi^- \mu^+ \mu^-$	Eluned Smith, Aachen
W Boson Production in Association with Jets at CMS	Kadir Ocalan, Konya

## V. Heavy Ions

**18:35-19:30**

Heavy-Ion Physics with ALICE	Jochen Klein, CERN
Heavy Ions at CMS	Gabor Veres, CERN

## Wednesday, March 8

### VI. Heavy Flavour Spectroscopy

#### 8.30-12:00

BESIII - Overview (including hadron spectroscopy)	Malte Albrecht, Bochum
BESIII - Observation fo Charmoniumlike Structure in Pipipi (2S)	Yateng Zhang, HeFei
Production of the Quarkonia States with the ATLAS Detector	Lailin Xu, Brookhaven
<i>coffee break</i>	
Heavy Flavour Production and Spectroscopy at LHCb	Jolanta Brodzicka, Manchester
Mixing and CP Violation in D- and B-Meson Systems at LHCb	Anita Nandi, Oxford
Recent Progress on Lattice QCD for Kaon Physics	Xu Feng, Beijing
New Limits on Heavy Neutrino Searches from NA62	Karim Massri, CERN

### VII. Flavour Physics

#### 16.00-18.00

The November 1974 Revolution, Charmonium and Much More	Alvaro De Rujula, CERN
B-Physics Anomalies: SM vs NP	Sébastien Descotes-Genon, Orsay
Lepton Flavour Universality Tests at LHCb:	Stefanie Reichert, CERN
New Physics Searches with $b \rightarrow sll$ Transitions and Rare Decays at LHCb	Kristof De Bruyn, Marseille
NP in Flavour Observables	Andreas Crivellin, PSI

### VIII. Special Session "Physics and Society"

#### 18.00-19:30

SESAME: A Source of Light in the Middle East	Zehra Sayers, Istanbul
Pencilled-in Big Physics	Vincenzo Palermo, Bologna

## Thursday, March 9

### IX. QCD and Electroweak Physics

#### 8.30-11.30

Progress in QCD for the LHC	Fabrizio Caola, CERN
Electroweak and QCD Physics at CMS	Daniele Trocino, Northeastern
Measurements of Underlying Event Properties and pQCD with Photons, Jets and Vector Boson +Jets with ATLAS	Frank Siegert, Dresden
Electroweak Precision Observables and Higgs Signal Strengths in the Standard Model and Beyond: Present and Future	Luca Silvestrini, Roma
<i>coffee break</i>	
Recent Results from D0	Boris Tuchming, Saclay
Hadronic Contribution to G-2 of the Muon and the Fine Structure Constant at the Mass Scale	Z- Cesareo Dominguez, Cape Town
Hadronic Light-by-Light Contribution to (G-2) within a Dispersive Approach	Gilberto Colangelo, Bern

### X. Electroweak and Top Physics

#### 16.30-19.30

Standard-Model Precision Measurements with W and Z Bosons Using the ATLAS Detector	Vasiliki Kouskoura, Brookhaven
Top, EWK and Recent Results from the Tevatron	Donatella Lucchesi, Padova
H(125) SM Boson Measurements at CMS	Martina Malberti, Milano
Electroweak Physics at LHC as a BSM Probe	Francesco Riva, CERN
Recent Progress in Top-Quark Physics and $t\bar{t}$	Eleni Vryonidou, Nikhef
Top Quark Measurements at CMS	Denys Lontkovsky, Brussels
Top Production and Top Properties Measurements with ATLAS	Wolfgang Wagner, Wuppertal
Charmless b-Hadron Decays at LHCb	Giulio Dujany Manchester

## Friday, March 10

### XI. Searching for New Physics

8.30-11.30

BSM Higgs Boson Searches at CMS	<i>Federica Primavera, LNF</i>
Dark Matter Searches at CMS	<i>Bhawna Gomber, Wisconsin</i>
Searching for Dark Matter Beyond SUSY with the ATLAS Detector	<i>Frederik Ruehr, Freiburg</i>
<i>coffee break</i>	
Flavour Anomalies vs. High-pT Physics	<i>Admir Greljo, Zurich</i>
Strongly Interacting BSM	<i>Francesco Sannino, Odense</i>
Searching for Exotic Physics with the ATLAS Detector	<i>Pierre-Antoine Delsart, Grenoble</i>
New Physics (non-SUSY) Searches at CMS	<i>Mikhailo Dalchenko, Texas A&amp;M</i>

### XII. Searching for New Physics - continued

16.30-18:35

SUSY Searches at CMS	<i>Florent Sylvain Lacroix, UC Riverside</i>
Low-Energy SUSY Facing LHC Constraints	<i>Emanuele A. Bagnaschi, DESY</i>
Searches for Strongly Produced SUSY Particles Including R-Parity Violating Decays with ATLAS	<i>Takashi Yamanaka, Tokyo</i>
Searches for Third Generation Squarks, and for Electroweak Production of Charginos and Neutralinos in ATLAS	<i>Federica Legger, Munich</i>
Perspectives of Direct Detection of Supersymmetric Dark Matter within the MSSM and NMSSM Framework	<i>Dmitry Kazakov, JINR</i>

### Young Scientists Forum

18:35-19:35

Differential Cross Section of Top Quark (ATLAS)	<i>Abigail O'Rourke, Hamburg</i>
Search for Single Production of a Vector-Like T Quark Decaying into a Top Quark and a Higgs Boson	<i>Heiner Tholen, Hamburg</i>
The Mu2e Experiment at Fermilab: Design and Status	<i>Raffaella Donghia, Roma</i>
Photon-Initiated processes at the LHC	<i>Juri Fiaschi, Southampton</i>

## Saturday, March 11

### X. Perspectives

9:00 – 10:30

The PADME Experiment for Dark Mediator Searches at the Frascati BTF	<i>Venelin Kozhuharov, Sofia</i>
BELLEII Status and Physics Prospects	<i>Pablo Goldenzweig, Karlsruhe</i>
Physics Opportunities with an Upgraded LHCb Detector in the HL-LHC Era	<i>Sascha Stahl, CERN</i>
The Day after LHC - Plans and Prospects for Future Accelerators	<i>Franco Bedeschi, Pisa</i>