

Les Rencontres de Physique de La Vallée d'Aoste
La Thuile 23 February - 1 March, 2014



SCIENTIFIC PROGRAMME

Monday, February 24

I. Cosmology and Astroparticle Physics

8.30 - 12.00

1. News from Planck
2. Results from the Alpha Magnetic Spectrometer on the ISS
3. An Extreme Point of View: the Fermi Gamma-Ray Sky
4. Recent Results from ICECube
5. Neutrino Physics Beyond Oscillation Measurements
6. Recent Results from GERDA
7. Borexino. Latest Achievements and Prospects

Paolo Natoli, Ferrara
Roberto Battiston, Trento
Sara Buson, Padova
Jan Auffenberg, Aachen
Silvia Pascoli, Durham
Matteo Agostini, Munich
Grzegorz Zuzel, Krakow

II. Cosmology and Astroparticle Physics - continued

16.30-18:15

1. Recent Results from T2K
2. Recent Results from Daya Bay
3. Double Chooz Status and Recent Results
4. Neutrino Mixing: a Theoretical Overview

Taritree Wongjirad, Duke
Viktor Pec, Prague
Cécile Jollet-Meregaglia, Strassburg
Davide Meloni, Roma

Young Scientists Forum

18.15-19.00

1. Progress in the Neural Network Parton Distributions
2. The Q-Weak Experiment: First Determination of the Weak Charge of the Proton

Stefano Carazza, Milano
Emmanouil Kargiantoulakis, Virginia

Tuesday, February 25

III. Cosmology and Astroparticle Physics - continued

8.30-10.30

1. Status of the CUORE and CUORE-0 Experiments at Gran Sasso
2. Dark Matter Searches: LUX
3. Dark Matter Searches: XENON
4. Dark Matter: Theory vs. Experiments

Sergio Di Domizio, Genova
Kevin O'Sullivan, Yale
Francesco Arneodo, Abu Dhabi
Laura Covi, Gottingen

IV. QCD and Heavy Flavour

10:35-11:50

1. Central Exclusive Production at CDF
2. Recent Results from TOTEM on Rho and Elastic and Total Cross Section at the LHC
3. Testable Upper and Lower Bound on Rho Re/Im Forward Scattering Amplitude

Mike Albrow, Fermilab
Nicola Turini, Siena
Nicola Khuri, Rockefeller

IV. QCD and Heavy Flavour - continued

16.30-18.45

4. QCD Studies with CMS
5. QCD Studies at ATLAS
6. Theoretical Progress in QCD
7. Heavy Flavour Production & Spectroscopy at ATLAS
8. Heavy Flavour Production & Spectroscopy at CMS
9. Production and Spectroscopy of Heavy Flavours at LHCb

Daniele Fasanella, Bologna
Monika Wieters, CERN
Juan Rojo, CERN
Patrick Jussel, Innsbruck
Sara Fiorendi, Milano
Dmytro Volyanskyy, Heidelberg-MPI

Young Scientists Forum

18.45-20:00

1. Rare Di-Leptonic Bs decays at LHCb
2. Ks Decays at LHCb
3. Improvement in Jet Energy Resolution for an $H \rightarrow b\bar{b}$ at D0

Alessandro Mordà, Marseille-CPPM
Carla Marin Benito, Barcelona
Savanna Shaw, Michigan

4. Higgs Properties with $H \rightarrow ZZ \rightarrow 4l$ in ATLAS
5. Performance of the B-Jet Identification in ATLAS

Richard David Mudd, Birmingham
Jelena Jovicevic, Geneva

Wednesday, February 26

V. Flavour Physics

8.30-11.45

1. Studies of Conventional and Exotic Charmonium at BABAR
2. Highlights on the Recent BESIII Results
3. Excited B at the Tevatron
4. Flavour Physics: SM vs. New Physics
5. Latest Results on Rare Decays from LHCb
6. Studies of Hadronic B Decays at LHCb
7. CP Violation in the B and D Systems
8. The $B \rightarrow K^* \ell \ell$ Puzzle

Valentina Santoro, Ferrara
Marco Maggiora, Torino
Manuel Kambeitz, Karlsruhe
David Straub, Munich
Justine Serrano, Marseille – CPPM
Christopher Jones, Cambridge
Marta Calvi, Milano
Joaquim Matias, Barcelona

VI. Electroweak and Top Physics

16:30 - 18:35

1. Anomalous Muon Production at D0
2. Diboson and EWK Physics at ATLAS
3. Diboson and EWK Physics at CMS
4. Top Production (including single top) at CMS
5. Top Production (including single top) at ATLAS

Guennadi Borissov, Lancaster
Anja Simone Vest, Dresden
Alicia Calderon Tazon, Cantabria
Carmen Diez Pardos, DESY
Francesco Spano, London

Young Scientists Forum

18:35 - 19:55

1. On the Recently Observed Tensions in B Decays
2. A_{fb} in $t\bar{t}$ Dilepton
3. $t\bar{t}$ Dilepton Asymmetry at D0
4. Search for WH/ZH , $H \rightarrow \tau\tau$ at CMS
5. Search for $H \rightarrow b\bar{b}$ at CMS

Pietro Biancofiore, Bari
Ziqing Hong, Texas A&M University
Antoine Chapelain, Saclay
Cecile Sarah Caillol, Bruxelles
Silvio Donato, Pisa

Thursday, February 27

VII. Top Physics

8.30-11.30

1. Single Top at the Tevatron
2. Top Properties at the Tevatron
3. Top Properties at CMS
4. Top Properties at ATLAS
5. On the Determination of the Top-Quark Mass
6. Top Quark as a Probe of New Physics

Craig Group, Virginia
Frederic Deliot, CEA
Yuan Chao, Taiwan
Alexander Grohsjean, DESY
Alexander Mitov, CERN
Cedric Delaunay, Annecy

Special Session: Honoring the 80th Birthday of Giorgio Bellettini

16.30-17.30

1. The ISR Years
2. The Summer Student at Fermilab Programme
3. Tevatron Legacy

Mike Albrow, Fermilab
Giorgio Chiarelli, Pisa
Costas Vellidis, Fermilab

Round TABLE: Which facilities to understand neutrinos?

17.30-19:30

Sergio Bertolucci, CERN - Jun Cao, IHEP - Fernando Ferroni, INFN - Regina Rameika, Fermilab -
Masato Shiozawa, Tokyo - Francesco Vissani, LNGS - Clarence J. Virtue, SNO

Friday, February 28

VIII. Higgs Physics

8.30-11.30

1. Higgs Properties at the Tevatron
2. Higgs into Fermions at ATLAS

Bob Hirosky, Virginia University
Dimitris Varouchas, Paris

3. Higgs into Fermions at CMS
4. Can we Call h125 the "SM Higgs"?
5. Higgs Properties at ATLAS
5. Higgs Properties at CMS
6. Higgs Physics beyond the SM

Joshua James Swanson, Brown
Roberto Contino, CERN
Magda Anna Chelstowska, Michigan
Jean-Baptiste Sauvan, LLR
Matthias Neubert, Mainz

IX. Searching for New Physics

16:30 – 19:15

1. Search for Supersymmetry at ATLAS
2. Search for Supersymmetry at CMS
3. SUSY: Theory vs. Experiments
4. Search for Physics Beyond the Standard Model (non SUSY) at ATLAS
5. Searches for Physics Beyond the Standard Model (non SUSY) at CMS
6. Testing the Muon $g-2$ Anomaly in the Electron Sector
7. New Physics in the Flavor Sector

Elisa Musto, Technion
Henning Flaecher, Bristol
Marcela Carena, Fermilab
Antonio Boveia, Chicago
Louis James Antonelli, Ohio
Francesco Terranova, Milano
Andreas Crivellin, CERN

Young Scientists Forum

19:00 - 19:45

1. Testing the New Physics Scale in the Bs System
2. Search for an Invisible Higgs at CDF
3. Search for New Massive Resonances Decaying to Two Charged Leptons at CMS

Cristiano Alpigiani, London
Cristiana Principato, FNAL
Thomas Reis, Bruxelles

Saturday, March 1

X. Perspectives

9:00 – 11:00

1. Status of the LHC
2. Status Report from BELLE2
3. Back to the Future: beyond the LHC

Gialuigi Arduini, CERN
Anze Zupanc, Karlsruhe
Michelangelo Mangano, CERN