
Scientific programme¹

Cosmology

Celine Boehm (Sydney U.)

Field Theory and the E-W Standard Model

Gustavo Burdman (USP)

Statistics and Machine Learning for HEP

Harrison Prosper (FSU)

Higgs and Beyond

John Ellis (King's College London and CERN)

Collider Experiments: the LHC and Beyond

Roger Forty (CERN)

Astronomy from the Southern Cone

Andres Jordan (Adolfo Ibanez U.)

Special Lecture on ATLAS New Small Wheels

George Mikenberg (Weizmann Institute)

Astro-Particle Physics in Latin America

Miguel Mostafa (Penn State)

Flavour Physics and CP Violation

Matthias Neubert (Johannes Gutenberg University Mainz, MITP)

Heavy-Ion Physics

Maria Elena Tejeda-Yeomans (U. de Colima, Mexico)

QCD

Giulia Zanderighi (MPP and TUM)

Neutrino Physics

Renata Zukanovich Funchal (USP)

¹Slides available at <https://indico.cern.ch/event/1210891/>.

Organizing committees

International organising committee

M. Aguilar, CIEMAT, Spain
L. Alvarez-Gaume, Stony Brook, USA
E. Carrera, USFQ, Ecuador
M. Cerrada, CIEMAT, Spain
C. Dib, UTSFM, Chile
M.T. Dova, UNLP, Argentina
J. Ellis, King's College London, UK and CERN
N. Ellis, CERN
M. Elsing, Schools Deputy-Director, CERN
A. Fernandez Tellez, BUAP, Mexico
A. Gago-Medina, PUCP, Peru
M. Gandelman, UFRJ, Brazil
P. Garcia, CIEMAT, Spain
A. Huss, CERN
M. Mulders, Schools Director, CERN (Chair)
K. Ross, Schools Administrator, CERN
C. Sandoval, UNAL, Colombia
S. Stahl, Schools Deputy-Director, CERN

Local organizing committee

Jorge Alfaro (PUC)
Will Brooks (UTFSM)
Mauro Cambiaso, Local Director (UNAB)
Giovanna Cottin (UAI)
Claudio Dib (UTFSM)
Jorge Gamboa (USACH)
Francisca Garay (PUC)
Hayk Hakobyan (UTFSM)
Juan Carlos Helo (ULS)
Ivan Schmidt (UTFSM)
Alfredo Vega (UV)
Alfonso Zerwekh (UTFSM)

List of lecturers

Celine Boehm (Sydney U.)
Gustavo Burdman (USP)
Harrison Prosper (FSU)
John Ellis (King's College London and CERN)
Roger Forty (CERN)
Fabiola Gianotti (CERN)
Andres Jordan (Adolfo Ibanez U.)
George Mikenberg (Weizmann Institute)
Miguel Mostafa (Penn State)
Matthias Neubert (Johannes Gutenberg University Mainz, MITP)
Maria Elena Tejeda-Yeomans (U. de Colima, Mexico)
Giulia Zanderighi (MPP and TUM)
Renata Zukanovich Funchal (USP)

List of discussion leaders

Nicolás Bernal (New York U., Abu Dhabi)
Giovanna Cottin (Adolfo Ibanez U. and SAPHIR Millenium Institute)
Juan Carlos Helo (La Serena U.)
Roger Hernandez-Pinto (Sinaloa U.)
Patricia Magalhaes (UCM)

List of Students

Kimy Johanna AGUDELO JARAMILLO
Julia Frances ALLEN
Mario Andrés ALPÍZAR VENEGAS
Jesus Ricardo ALVARADO GARCIA
Nicolás AVALOS
Yan BANDEIRA
Mauricio David BATISTA PEREZ
Maryam BAYAT MAKOU
Lisandro Tomás BAZZANO
Jean Yves BEAUCAMP
Santiago BERNAL LANGARICA
Pedro BITTAR
Luis Andrés CHICAIZA
Jordan Camilo CORREA ROZO
Camilo Andres CORTES PARRA
Sergio Manuel CUBIDES PÉREZ
Daniel DÍAZ
Yessica DOMINGUEZ BALLESTEROS
Patricio ESCALONA CONTRERAS
Jonas ESCHLE
Miguel David FERNÁNDEZ MOREIRA
Osvaldo FERREIRA NETO
Pablo FIERRO ROJAS
Ana Luisa FOGUEL
Úrsula FONSECA
Fabiola FORTUNA
Juan Manuel GONZÁLEZ
Richards GONZÁLEZ
Emily HAMPSHIRE
Fabián HERNÁNDEZ-PINTO
Yanwen HONG
Ilia KALAITZIDOU
Dongwon KIM

Jan KLAMKA
Oleksii KURDYSH
Tulio LAUX KUHN
Julia LEITE
Daina LEYVA PERNIA
Bruno LOPES DA COSTA
Isabela MAIETTO SILVERIO
Marina MANEYRO
Juan MARCHANT GONZÁLEZ
Rafael MARTINEZ RIVERO
Tommy MARTINOV
Christopher MCGRADY
Thomas Christopher MCLACHLAN
Lucas MEYER GARCIA
Alessandro MONTELLA
Guilherme NOGUEIRA
Sebastián NORERO
Gonzalo ORTEGA
Sergio PAISANO GUZMAN
Lucas PALMA
Emily PENDER
Victoria RAMOS DE OLIVEIRA
Christian RECKZIEGEL
Alberto RESCIA
Anderson Alexis RUALES BARBOSA
Francisco SILI
Diego SILVA VIEIRA GONÇALVES
Felipe Luan SOUZA DE ALMEIDA
Santiago TANCO
Jonatan VIGNATTI
Beatriz VIVACQUA
Federico WINKEL
Estifa'a ZAID

List of Posters

Poster title

Presenter

Sensibility to anomalous quadratic gauge couplings in the production of $\gamma\gamma \rightarrow W^+W^-$ with intact protons at CERN-LHC

TULIO L.KUHN

Dark matter-Standard Model interactions mediated by spin-one particles: EFT study

FABIOLA FORTUNA, PABLO ROIG

Diffusion and interaction effects on ultra high energy cosmic rays

JUAN MANUEL GONZÁLEZ, SILVIA MOLLERACH, ESTEBAN ROULET

Studies of the Long Term Stability of the Track Selection Criteria for the ATLAS Track Counting Luminosity Measurement

TOM MCLACHLAN

The Ecuadorian experience with the CMS Open Data initiative

A.CHICAIZA, P.LLERENAL, D.MERIZALDE, J.OCHOA, E.CARRERA, A.GOMEZ ESPINOSA, E.AYALA

ALTIROC1 and ALTIROC2 Test Beam results

OLEKSII KURDYSH

Photo production of particles in ultra peripheral collisions at ALICE-LHC

S.PAISANO GUZMAN, M.RODRIGUEZ CAHUANTZI

Gas Electron Multiplies for the Upgrade of the CMS Muon System

YANWEN HONG

Transverse momentum spectra from the color string tension fluctuations

J.R.ALVARADO GARCIA, J.E.RAMIREZ, A.FERNANDEZ TELLEZ

Unitarization in high energy proton collisions

MARINA MANEYRO, EMERSON LUNA, MARCELA PELAEZ

Dark Matter Search with DEAP-3600

M.ALPIZAR-VENEGAS

Cooling of quark stars from perturbative QCD

URSULA FONSECA, EDUARDO S.FRAGA

Asymmetric Dark Matter in the Twin World

PEDRO BITTAR

The chaoticity parameter of the two-pion correlation function

A.AYALA, S.B.LANGARICA, I.DOMINGUEZ, I.MALDONADO, M.E.TEJEDA-YEOMANS

Poster title	Presenter
Using the Lund Jet Plane to tag b-jets in high p_T	ALBERTO RESCIA
Scaleable pythonic fitting	JONAS ESCHLE, A.PUIG, R.S.COUTINHO, N.SERRA
Search for CPV in $D^+ \rightarrow K^- K^+ \pi^+$ decays at the LHCb experiment	F.L.S.DE ALMEIDA
Search for CP violation in the $D^+ \rightarrow \pi^- \pi^+ \pi^+$ decay using LHCb data	BEATRIZ VIVACQUA
Direct Production of $J/\psi\phi$ Vector Mesons with no additional Activity at the LHCb Experiment	LUCAS MEYER GARCIA
Reconstruction of long-lived particles with the ILD at the ILC	JAN KLAMKA
Search for b-associated Standard Model Higgs boson production with Machine Learning techniques in the CMS experiment	MARYAM BAYAT MAKOU
Using soft muons from $t\bar{t}$ decays to probe Lepton Flavour Universality Violation at ATLAS	EMILY HAMPSHIRE
Study of D and D^* meson interactions via femtoscopic correlations	ISABELA MAIETTO SILVERIO, SANDRA DOS SANTOS PADULA, GASTAO KREIN
Alignment of the CMS tracker system and performance in Run3	DAINA LEYVA PERNIA
(In)Visible signatures of the minimal dark abelian gauge sector	A.L.FOGUEL, G.M.SALLA, R.Z.FUNCHAL
Search for photon+jet high mass resonances	FRANCISCO SILI
Analysis of the decay $D^+ \rightarrow \pi^- \pi^+ K^+$ for CP violation studies using LHCb data	V.R.DE OLIVEIRA
The Elusive Muonic WIMP	ANIBAL MEDINA, NICOLAS MILEO, ALEJANDRO SZYNKMAN SANTIAGO TANCO
p_T fluctuations on the jet region with Pythia on pp collisions at 13 TeV	PABLO FIERRO ROJAS, IRAIS BAUTISTA GUZMAN
The ALICE FoCal: A tool to probe gluon saturation	CHRISTIAN RECKZIEGEL
Higher-order QCD in Higgs to gluon gluon	DIOGO BOITO, GUILHERME NOGUEIRA
Tidal deformability of strange magnetars admixed with fermionic dark matter	OSVALDO FERREIRA, EDUARDO S.FRAGA

Poster title**Presenter**

Measurement of $ V_{ub} $ via inclusive semi-leptonic B decays at Belle II	TOMMY MARTINOV
Search for a new low-mass scalar decaying to a boosted pair of tau leptons with the ATLAS detector at the LHC	JEAN YVES BEAUCAMP
Search for $A \rightarrow ZH \rightarrow \nu\nu bb$ with the ATLAS detector	ILIA KALAITZIDOU
Search for leptoquark signals at the LHC using machine-learned likelihoods	D.DIAZ, E.ARGANDA, A.SZYNKMAN, A.PEREZ, R.SANDA SEOANE
DMSQUARE: Searching for Dark Matter at the south of Argentina	N.AVALOS