

## Session Program

5-12 Jul 2017



## EPS-HEP 2017

### *Higgs and new physics*

Venice, Italy

Palazzo del Cinema and Palazzo del Casinò, Lido di Venezia, Italy

# Thursday 6 July

09:00

## Higgs and new physics: Higgs

**Session** | **Location:** Palazzo del Casinò, Sala Perla | **Convener:** Ivica Puljak

09:00–09:15

### Measurement of the Higgs boson couplings and properties in the diphoton, ZZ and WW decay channels using the ATLAS detector

**Speaker**

Ruchi Gupta

09:15–09:30

### Measurement of properties of Higgs boson decaying to pairs of W and Z bosons at 13 TeV with the CMS experiment

**Speaker**

Muhammad Bilal Kiani

09:30–09:45

### The Latest CMS results on Higgs boson decaying to two photons with 13 TeV data

**Speaker**

Michael Planer

09:45–10:00

### Measurement of the SM Higgs boson mass in the diphoton and 4l decay channels using the ATLAS detector

**Speaker**

Karolos Potamianos

10:00–10:15

### Inclusive search for boosted Higgs bosons using $H \rightarrow bb$ decays with the CMS experiment

**Speaker**

Caterina Vernieri

10:15–10:30

### Probing light-quarks Yukawa couplings & new physics in Higgs + jet(b-jet) studies

**Speaker**

Dr Shaouly Bar-Shalom

10:30–10:45

### Results for SM Higgs decaying to bottom quarks or tau pairs

**Speaker**

Michele De Gruttola

10:45–11:00

### Measurement of fermionic couplings of the SM Higgs boson using the bb, tautau and mumu decay channels with the ATLAS detector

**Speaker**

Song-Ming Wang

11:00-11:30 **Coffee break**

11:30-11:45

**Determination of the Higgs boson properties with the ATLAS detector.****Speaker**

Tamara Vazquez Schroeder

11:45-12:15

**Search for rare and exotic Higgs boson decays at CMS****Speaker**

Nabarun Dev

12:15-12:30

**Search for non-standard, rare or invisible decays of the Higgs boson with the ATLAS detector.****Speaker**

Paul Thompson

12:30-12:45

**Search of a high mass neutral Higgs boson in fermion final states with the ATLAS detector.****Speaker**

Gaetano Barone

12:45-13:00

**Latest results on searches for MSSM Higgs Search and Beyond at CMS****Speaker**

Chayanit Asawatangtrakuldee

13:00

14:30

**Higgs and new physics: Higgs****Session** | **Location:** Palazzo del Casinò, Room Welles | **Convener:** Giuseppe Degrassi

14:30-14:45

**Charged Higgs production with a W boson or a top quark****Speaker**

Nikolaos Kidonakis

14:45-15:00

**Charged Higgs boson searches with the ATLAS detector****Speaker**

Elin Bergeaas Kuutmann

15:00-15:15

**Standard Model Extended by a Heavy Singlet: Linear vs. Nonlinear EFT****Speaker**

Alejandro Celis

15:15-15:30

**Search for a new spin-zero resonance in diboson channels at 13 TeV****Speaker**

Alessio Magitteri

15:30-15:45

**Search for high mass bosonic resonances with the ATLAS detector****Speaker**

Leonardo Carminati

15:45-16:00 **Flavour Physics meets Heavy Higgs Searches**

**Speaker**

Ayan Paul

16:00-16:30 **Coffee break**

16:30-16:45

**Precision Calculations to Top- and Bottom-Yukawa Couplings within the SM and BSM**

**Speakers**

Dr Luminita Mihaila, Luminita Mihaila

16:45-17:00 **Two-Higgs-doublet model fits with HEPfit**

**Speaker**

Otto Eberhardt

17:00-17:15 **Tracks of resonances in electroweak effective Lagrangians**

**Speaker**

Ignasi Rosell

17:15-17:30

**Search for Higgs-like particle produced in association with  $b\bar{b}$  quarks and measurement of  $Z \rightarrow b\bar{b}$  cross section at CDF II**

**Speaker**

Emanuele Michielin

17:30-17:45

**Searching for massless Dark Photons at LHC via Higgs boson production**

**Speaker**

Dr Barbara Mele

17:45-18:00

**ATLAS Higgs and supersymmetry physics prospects at the high luminosity LHC**

**Speaker**

Nicola Venturi

18:00-18:15 **Higgs measurements at the HL-LHC with CMS**

**Speaker**

Adinda De Wit

18:15-18:30 **Sensitivity to anomalous VVH couplings at the ILC**

**Speaker**

Mr Tomohisa Ogawa

18:30

14:30

## Higgs and new physics: Supersymmetry

**Session** | **Location:** Palazzo del Casinò, Sala Perla | **Convener:** Marie-Helene Genest

14:30-15:00 **SUSY scenarios according to EWSB**

**Speaker**

Radovan Dermisek

15:00-15:15

**Searches for supersymmetry via strong production in fully hadronic final states at CMS****Speaker**

Myriam Schoenenberger

15:15-15:30

**Inclusive searches for squarks and gluinos in final states with no leptons with the ATLAS detector****Speaker**

Otilia Anamaria Ducu

15:30-15:45

**Searches for supersymmetry via strong production in events with one or more leptons at CMS****Speaker**

Christian Schomakers

15:45-16:00

**Inclusive searches for squarks and gluinos in final states with leptons with the ATLAS detector****Speaker**

Ximo Poveda Torres

16:00-16:30

**Coffee break**

16:30-16:45

**Compressed SUSY searches with the Recursive Jigsaw Reconstruction****Speaker**

Paul Douglas Jackson

16:45-17:00

**Search for compressed SUSY scenarios with the ATLAS detector****Speaker**

Julien Maurer

17:00-17:15

**Search for supersymmetry with compressed mass spectra or decays via Higgs bosons at CMS****Speaker**

Constantin Heidegger

17:15-17:30

**Supersymmetry signals in  $Z'$  decays****Speaker**

Gennaro Corcella

17:30-17:45

**Searches for production of third generation squarks at CMS****Speaker**

Indara Suarez

17:45-18:00

**Searches for direct pair production of third generation squarks in final states with no leptons with the ATLAS detector**

**Speaker**

Tommaso Lari

18:00-18:15

**Searches for direct pair production of third generation squarks in final states with leptons with the ATLAS detector**

**Speaker**

Priscilla Pani

18:15-18:30

**Soft gluon resummation for associated gluino-gaugino production at the LHC**

**Speaker**

Michael Klasen

18:30

## Friday 7 July

09:00

### Higgs and new physics: Exotics

**Session** | **Location:** Palazzo del Casinò, Room Welles | **Convener:** Marie-Helene Genest

09:00–09:15

#### Implications of Vector Boson Scattering Unitarity in Composite Higgs Models

**Speaker**

Diogo Buarque Franzosi

09:15–09:30

#### Search for New Phenomena in Dijet Events with the ATLAS Detector at $\sqrt{s} = 13$ TeV

**Speaker**

Attilio Picazio

09:30–09:45

#### Searches for new physics in dijet and multijet final states

**Speaker**

Federico Preiato

09:45–10:00

#### Search for contact interactions in inclusive ep scattering at HERA

**Speaker**

Katarzyna Wichmann

10:00–10:15

#### Low-mass di-muon searches with the LHCb detector

**Speaker**

Christoph Michael Langenbruch

10:15–10:30

#### Searches for non-resonant new phenomena in final states with leptons and photons

**Speaker**

Oscar Gonzalez Lopez

10:30–10:45

#### Searches for new phenomena in leptonic final states using the ATLAS detector

**Speaker**

Giacomo Artoni

10:45–11:00

#### Searches for new heavy resonances in final states with leptons and photons

**Speaker**

Benjamin Radburn-Smith

11:00–11:30

#### Coffee break

11:30–11:45

#### Revealing BSM Composite Dynamics Through Topological Interactions at Future Colliders

**Speaker**

Natascia Vignaroli

11:45–12:00

**The W and Z boson spin observables as messengers of New Physics at LHC****Speaker**

Prof. José Bernabeu

12:00–12:15

**Electroweak resonances in HEFT****Speaker**

Antonio Dobado

12:15–12:30

**Limits on Torsion parameters from ttbar production at LHC****Speaker**

Andre Nepomuceno

12:30–12:45

**Limits on the effective quark radius from inclusive ep scattering at HERA****Speakers**

Oleksii Turkot, Oleksii Turkot

12:45–13:00

**BSM physics at energy-frontier lepton-hadron colliders****Speaker**

Kechen Wang

13:00

09:00

**Higgs and new physics: Higgs****Session** | **Location:** Palazzo del Casinò, Sala Perla | **Conveners:** Michael Duehrssen-Debling, Tamara Vazquez Schroeder

09:00–09:30

**EFT probes of new physics****Speaker**

Joan Elias Miro

09:30–09:45

**Measurement of the Higgs boson differential and fiducial cross sections at CMS****Speaker**

Vittorio Raoul Tavolaro

09:45–10:00

**Measurement of fiducial and differential cross sections of the SM Higgs boson in the diphoton and 4l decay channels using the ATLAS detector****Speaker**

Andrea Gabrielli

10:00–10:15

**Higgs decay into four leptons in the presence of dimension-six operators****Speaker**

Dr Stefano Boselli

10:15–10:30

**Searches for HH production at 13 TeV with the CMS detector****Speaker**

Martino Dall'Osso

**10:30-10:45 Search for di-Higgs production with the ATLAS detector****Speaker**

Will Davey

10:45-11:00

**Probing the Higgs trilinear self-coupling via single Higgs production and precision physics.****Speaker**

Giuseppe Degrassi

11:00-11:30 **Coffee break**

11:30-11:45

**Improving predictions for associated  $t\bar{t}H$  production at the LHC: soft gluon resummation through NNLL accuracy****Speaker**

Tomasz Stebel

11:45-12:00

**Latest CMS results on Higgs boson production in association with top quarks****Speaker**

Saranya Samik Ghosh

12:00-12:15

**Search for the SM Higgs boson in the  $t\bar{t}H$  production channel using the ATLAS detector.****Speaker**

Judith Katzy

12:15-12:30 **Latest CMS results on  $t\bar{t}H(bb)$  production****Speaker**

Daniel Salerno

12:30-12:45

**Searches for associated production of the Higgs boson with a single top at 13 TeV at CMS****Speaker**

Pallabi Das

12:45-13:00

**Search for a new Higgs boson-like low-mass resonance in the diphoton final state in  $pp$  collisions in CMS****Speaker**

Linda Finco

13:00

14:30

**Higgs and new physics: Future Colliders****Session** | **Location:** Palazzo del Casinò, Sala Perla | **Convener:** Paolo Meridiani14:30-14:45 **The Potential of the ILC for Discovering New Particles****Speaker**

Jenny List

**14:45-15:00 Higgs and BSM physics at CLIC****Speaker**

Gordana Milutinovic-Dumbelovic

**15:00-15:15 Probing Chirality of Top-Higgs FCNC Couplings at Linear Colliders****Speakers**

Prof. Blazenka Melic, Blazenka Melic, Blazenka Melic, Blazenka Melic

**15:15-15:30 Precision Higgs Measurements at the 250 GeV ILC****Speaker**

Tim Barklow

**15:30-15:45 Higgs measurement at Future Circular Collider****Speaker**

Janna Katharina Behr

**15:45-16:00 Higgs Physics at the LHeC and the FCC-eh****Speaker**

Dr Kechen Wang

16:00

14:30

**Higgs and new physics: Supersymmetry****Session** | **Location:** Palazzo del Casinò, Room Welles | **Convener:** Radovan Dermisek**14:30-14:45****Searches for electroweak production of supersymmetric gauginos and sleptons with the ATLAS detector****Speaker**

Zinonas Zinonos

**14:45-15:00 Search for electroweak production of supersymmetry at CMS****Speaker**

Miaoyuan Liu

**15:00-15:15 Search for supersymmetry in events with photons at CMS****Speaker**

Marc Gabriel Weinberg

**15:15-15:30 Search for R-parity violating supersymmetry with the ATLAS detector****Speaker**

Sascha Mehlhase

**15:30-15:45 First SUSY results with GAMBIT****Speaker**

Anders Kvellestad

**15:45-16:00 On the Coverage of the pMSSM by Simplified Model Results****Speaker**

Ursula Laa

**16:00-16:30 Coffee break**

16:30-16:45

**Search for the decay of the Higgs boson into two mSUSM pseudo-scalar particles.****Speaker**

Michel Janus

16:45-17:00

**Status and discovery prospects for light pseudoscalars in the mSUSM****Speaker**

Nils-Erik Bomark

17:00-17:15

**Perspectives for SUSY in light of current LHC constraints****Speaker**

Diego Martinez Santos

17:15-17:30

**Naturalness and light Higgsinos: why ILC is the right machine for SUSY discovery****Speakers**

Ms Suvi-Leena Lehtinen, Suvi-Leena Lehtinen

17:30-17:45

**The Fine-tuning of the Minimal Supersymmetric Standard Model: Constraints by the LHC, Future Colliders and Dark Matter searches****Speaker**

Sascha Caron

17:45-18:00

**The muon  $g-2$  and dark matter in the mSUSM at 100 TeV****Speaker**

Matthew Talia

18:00-18:15

**Muon  $g-2$  and dark matter in models with vector-like fermions****Speaker**

Enrico Maria Sessolo

18:15-18:30

**Effects of Extra Yukawa Couplings and Alignment****Speaker**

Dr Mariko Kikuchi

18:30

16:30

**Higgs and new physics: Long-lived particles****Session** | **Location:** Palazzo del Casinò, Sala Perla | **Convener:** Marie-Helene Genest

16:30-17:00

**New long-lived particles at the LHC****Speaker**

Daniel Stolarski

17:00-17:15

**The MoEDAL Experiment at the LHC - a New Light on the High Energy Frontier****Speaker**

James Pinfold

17:15-17:30

**Search for long-lived particles at LHCb****Speaker**

Alberto Lusiani

17:30-17:45

**Searches for long-lived particles and other non-conventional signatures****Speaker**

Todd Adams

17:45-18:00

**Search for New Physics through the Reconstruction of Challenging and Long-Lived Signatures with the ATLAS detector  $\sqrt{s} = 13$  TeV****Speaker**

Nora Emilia Pettersson

18:00-18:15

**Search for hidden-sector particles at NA62****Speaker**

Gaia Lanfranchi

18:15-18:30

**Search for new physics with the SHiP experiment at CERN****Speaker**

Oliver Lantwin

18:30

## Saturday 8 July

09:00

### Higgs and new physics: Exotics

**Session** | **Location:** Palazzo del Casinò, Sala Perla | **Conveners:** ALEKSANDR AZATOV, Marie-Helene Genest

09:00–09:30 **Status of Composite Higgs**

**Speaker**

Dr Aleksandr Azatov

09:30–09:45 **ATLAS Searches for VH and HH Resonances**

**Speaker**

Wade Cameron Fisher

09:45–10:00

**Search for diboson resonances decaying into W, Z and H bosons at CMS**

**Speaker**

Clemens Lange

10:00–10:15 **Exotic signatures of new gauge bosons**

**Speaker**

Bogdan Dobrescu

10:15–10:45 **ATLAS Searches for VV/V+gamma Resonances**

**Speaker**

Kalliopi Iordanidou

10:45–11:00

**Large scale separation and hadronic resonances from a new strongly interacting sector**

**Speaker**

Oliver Witzel

11:00–11:30 **Coffee break**

11:30–11:45 **Search for vector-like quarks**

**Speaker**

Olaf Nackenhorst

11:45–12:00 **Search for vector-like quarks and excited quarks at CMS**

**Speaker**

Giorgia Rauco

12:00–12:15 **Search for heavy resonances decaying to top quarks**

**Speaker**

Saverio D'Auria

12:15–12:30

**Search for new resonances coupling to third generation quarks at CMS**

**Speaker**  
Johannes Haller

12:30-12:45 **Searches for new physics in lepton+jet final states**

**Speaker**  
Marc Stover

12:45-13:00

**Searches for new phenomena in final states involving leptons and jets using the ATLAS detector**

**Speaker**  
Paolo Mastrandrea

13:00