

Session Program

30 September 2019 to 4 October 2019

Higgs Couplings 2019

Parallel

Tuesday 1 October

16:30

Parallel: Additional Higgs bosons I

Session | **Location:** Martin Wood Lecture Theatre Parks Road, Oxford | **Convener:** Reisaburo Tanaka

16:30–16:42 **Recursive neural tensor networks for jet classification**

Speaker

Mr Henry Day-Hall

16:45–16:57

A deep neural network for the simultaneous estimation of the b jet energy correction and resolution for CMS

Speaker

Nadezda Chernyavskaya

17:00–17:12

Search for additional low-mass ($m < 125$ GeV) Higgs bosons at CMS

Speaker

Muhammad Aamir Shahzad

17:15–17:25

A Search for Boosted Higgs and Other Low Mass Resonances decaying to two b-quarks with an associated jet at ATLAS

Speaker

Migle Stankaityte

17:30–17:42

MHDM's and Singular Alignment

Speaker

Dr Ulises Saldana

17:45–17:57

Search for $H \rightarrow t\bar{t}$ with CMS

Speaker

Andrey Popov

18:00–18:12

Higgs interference effect at the one-loop level in the 1-Higgs-Singlet extension of the Standard Model

Speaker

Weimin Song

18:15

16:30

Parallel: Precision Higgs

Session | **Location:** Martin Wood Lecture Theatre Parks Road, Oxford | **Convener:** Lorenzo Tancredi

16:30–16:42 **Differential cross section measurements at ATLAS**

Speaker

Daniela Boerner

16:45–16:57

Higgs to WW Run 2 results at CMS

Speaker

Jonatan Piedra Gomez

17:00–17:12 **ECAL trigger performance in Run 2 and improvements for Run 3****Speaker**

Marko Kovac

17:15–17:27 **Prospects for Higgs boson measurements at the HL-LHC****Speaker**

Prof. Nicola De Filippis

17:30–17:42 **On the non-factorizable NNLO QCD corrections to VBF****Speaker**

Dr Alexander Karlberg

17:45–17:57

On the ambiguities of the BLM/PMC procedure for hadron collider processes**Speaker**

Herschel Chawdhry

18:00–18:12

Treatment of theory uncertainties in Higgs boson measurements and searches at ATLAS**Speaker**

Thomas Calvet

18:15

16:30

Parallel: Yukawa couplings**Session** | **Location:** Martin Wood Lecture Theatre Parks Road, Oxford | **Convener:** Yuji Enari

16:30–16:40

The status of Missing Mass Calculator for Higgs boson mass estimation in the ATLAS $H \rightarrow \tau\tau$ analysis**Speaker**

Krystsina Petukhova

16:45–16:57 **Preserving physically important variables in optimal event selections****Speaker**

Philipp Windischhofer

17:00–17:10

Measurement of the VH , $H \rightarrow b\bar{b}$ production as a function of the vector boson transverse momentum in 13 TeV pp collisions with the ATLAS detector.**Speaker**

Giulia Di Gregorio

17:15–17:27

First CMS direct search for $H(cc)$ at CMS - charm tagging and machine learning**Speaker**

Spandan Mondal

17:30–17:42

Search for the Higgs boson decaying to charm quarks using large-radius jets with the CMS experiment

Speaker

Huilin Qu

17:45-17:57

Measurement of $t\bar{t}H(bb)$ in proton-proton collision data at 13 TeV

Speaker

Maren Tabea Meinhard

18:00-18:12

Exploring Higgs couplings in single top-quark production

Speaker

Sascha Peitzsch

18:15

Wednesday 2 October

14:15

Parallel: Di-Higgs

Session | **Location:** Martin Wood Lecture Theatre Parks Road, Oxford | **Convener:** James Frost

14:15–14:27 **Double Higgs boson production at NLO**

Speaker

Go Mishima

14:30–14:42 **Glue fusion into Higgs pairs at NLO QCD and the top mass scheme**

Speaker

Seraina Glaus

14:45–14:57

Higgs pair production at NLO QCD within a non-linear EFT implemented in POWHEG-BOX

Speaker

Ludovic Michel Scyboz

15:00–15:12 **Searches for non-resonant HH production at CMS**

Speaker

Muhammad Bilal Kiani

15:15–15:27 **Search for di-Higgs production at 13 TeV and prospects for HL-LHC**

Speaker

Alessandra Betti

15:30–15:40

Extending the search for di-higgs decaying to $b\bar{b}b\bar{b}$ in the boosted channel with the ATLAS detector

Speaker

Santiago Rafael Paredes Saenz

16:00

14:15

Parallel: Effective field theory

Session | **Location:** Martin Wood Lecture Theatre Parks Road, Oxford | **Convener:** Michael Duehrssen-Debling

14:15–14:27 **EFT interpretation of STXS stage 1.1 measurements at CMS**

Speaker

Jonathon Mark Langford

14:30–14:42 **The Higgs width in the SMEFT**

Speaker

Ilaria Brivio

14:45–14:55

Test of CP invariance in vector-boson fusion production of the Higgs boson using $H \rightarrow \tau\tau$ decays at the ATLAS experiment

	<p>Speaker Alena Loesle</p>
	<p>15:00–15:10 Constraining the Higgs boson self-coupling via indirect single-Higgs production and decay measurements</p> <p>Speaker Eleonora Rossi</p>
	<p>15:15–15:27 Higgs EFT modifications of tau $g-2$ using LHC photon collisions</p> <p>Speaker Jesse Liu</p>
	<p>15:30–15:42 Study of $H\gamma Z$ coupling at the ILC</p> <p>Speaker Yumi Aoki</p>
	<p>15:45–15:57 Electroweak precision observables for the Higgs coupling determination at the ILC</p> <p>Speaker Jenny List</p>
16:00	
16:30	<p>Parallel: Additional Higgs bosons II Session Location: Martin Wood Lecture Theatre Parks Road, Oxford Convener: Chris Hays</p>
	<p>16:30–16:40 Search for heavy resonances in the $H \rightarrow ZZ$ channel with ATLAS</p> <p>Speaker Birgit Sylvia Stapf</p>
	<p>16:45–16:57 Searches for BSM Higgs at ATLAS</p> <p>Speaker Sinead Farrington</p>
	<p>17:00–17:12 Doubly Charged Higgs Search At The LHC : A Probe For The Complex Triplet Scalar Extension Of The SM</p> <p>Speaker NIVEDITA GHOSH</p>
	<p>17:15–17:27 Charged Higgs in MSSM and Beyond</p> <p>Speaker Dr Yasar Hicyilmaz</p>
	<p>17:30–17:42 Mass spectrum and Higgs profile in B–L symmetric SSM</p> <p>Speaker Mr Ozer Ozdal</p>
	<p>17:45–17:57 Dark matter in the three Higgs doublet model</p> <p>Speaker Dr Diana Rojas-Ciofalo</p>
18:00	

16:30

Parallel: Beyond the Standard Model**Session** | **Location:** Martin Wood Lecture Theatre Parks Road, Oxford | **Convener:** Frederic Alexandre Dreyer**16:30–16:42** **Searches for lepton-flavor violating Higgs boson decays at ATLAS****Speaker**

Carlo Enrico Pandini

16:45–16:57 **Constraining the MSSM Higgs sector in the low $\tan\beta$ region****Speaker**

Henning Bahl

17:00–17:12 **On the experimental status of Composite Higgs Models****Speaker**

Charanjit Kaur

17:15–17:27 **Spotting hidden sectors with Higgs binoculars****Speaker**

Jennifer Thompson

17:30–17:42 **SO(10) at the LHC****Speaker**

Simon King

17:45–17:57 **Asymptotic safety in gravity and Beyond the Standard Model****Speaker**

Jan Kwapisz

18:00