

Higgs 2020

Tuesday, 27 October 2020

Parallel: Di-Higgs and self-coupling I (12:30 - 14:00)

-Conveners: Katharine Leney; Mauro Donega; Christoph Peter Englert

| time | [id] title | presenter |
|-------|---|--|
| 12:30 | [114] Searches for new resonances decaying to HH at CMS (15'+5') | PANWAR, Lata |
| 12:50 | [115] Searches for new resonances decaying to HH at ATLAS (15'+5') | ZHANG, Bowen |
| 13:10 | [116] WBF/GF HH resonances from a phenomenological perspective (15'+5') | Dr BARMAN, Rahool Kumar |
| 13:30 | [117] BSM scenarios with HH resonances (15'+5') | MUHLEITNER, Milada MUHLEITNER, Milada |

Parallel: Precision Higgs I (12:30 - 14:00)

-Conveners: Sarah Heim; Bernhard Mistleberger; Alicia Calderon Tazon

| time | [id] title | presenter |
|-------|---|--|
| 12:30 | [81] [ATLAS+CMS] Differential Higgs cross section as a function of pT (15'+5') | FONTANESI, Elisa |
| 12:50 | [82] Fixed Order Predictions for Higgs Boson Production at Large Transverse Momentum (15'+5') | LINDERT, Jonas |
| 13:10 | [83] Event Generation for Higgs Boson Production at Large Transverse Momentum (15'+5') | VRONIDOU, Eleni |
| 13:30 | [112] Combined resummation for Higgs transverse momentum distribution (15'+5') | RABEMANANJARA, Tanjona Radonirina RABEMANANJARA, Tanjona Radonirina |

Parallel: Yukawa couplings I (12:30 - 14:00)

-Conveners: Tamara Vazquez Schroeder; Yotam Soreq; Chris Palmer

| time | [id] title | presenter |
|-------|--|------------------------------|
| 12:30 | [88] Overview Yukawa coupling (15'+5') | BISHARA, Fady Adibsamy |
| 12:50 | [99] b Yukawa (H>bb) [ATLAS+CMS] (15'+5') | CAMACHO TORO, Reina Coromoto |
| 13:10 | [102] c Yukawa (H>cc) [ATLAS+CMS] (15'+5') | BURKLE, Bjorn |
| 13:30 | [91] Higgs prospects with LHCb and its upgrades (15'+5') | ZULIANI, Davide |

Parallel: Di-Higgs and self-coupling II (14:20 - 16:00)

-Conveners: Katharine Leney; Christoph Peter Englert; Mauro Donega

| time | [id] title | presenter |
|-------|---|----------------------|
| 14:20 | [118] Searches for non-resonant Higgs pair-production at ATLAS (15'+5') | VEATCH, Jason Robert |
| 14:40 | [119] Searches for non-resonant Higgs pair-production at CMS (15'+5') | MUKHERJEE, Soumya |

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|-------|--|----------------------------------|
| 15:00 | [120] SM DiHiggs precision shapes (15'+5') | GLAUS, Seraina GLAUS, Seraina |
| 15:20 | [121] Non-resonant/EFT Higgs pair phenomenology (15'+5') | ZURITA, José Francisco |
| 15:40 | [164] Discussion | |

Parallel: Precision Higgs II (14:20 - 16:00)

-Conveners: Bernhard Mistleberger; Sarah Heim; Alicia Calderon Tazon

| time | [id] title | presenter |
|-------|--|------------------------|
| 14:20 | [97] [ATLAS+CMS] Higgs production (combination and selected per-channel measurements - VBF $H \rightarrow WW$, $VHbb$ particularly interesting. No STXS) (15'+5') | BASSO, Matthew |
| 14:40 | [113] [ATLAS+CMS] Fiducial and differential Higgs cross sections (except for Higgs transverse momentum) (15'+5') | FASSOULIOTIS, Dimitris |
| 15:00 | [98] Bottom quark mass effects in associated Higgs production at NNLO (15'+5') | BEHRING, Arnd |
| 15:20 | [101] Jet Veto Cross Sections for Higgs Boson Production | GANGAL, Shireen |
| 15:40 | [163] Discussion | |

Parallel: Yukawa couplings II (14:20 - 16:00)

-Conveners: Tamara Vazquez Schroeder; Chris Palmer; Yotam Soreq

| time | [id] title | presenter |
|-------|---|------------------------|
| 14:20 | [92] CP violation (15'+5') | BROD, Joachim |
| 14:40 | [93] Tau coupling ($H \rightarrow \tau\tau$, CP violation) [ATLAS+CMS] (15'+5') | LOELIGER, Andrew David |
| 15:00 | [94] $H \rightarrow \mu\mu$ and baryogenesis (15'+5') | VIERNIK, Yehonatan |
| 15:20 | [95] $H \rightarrow \mu\mu$ [ATLAS] (15') | MUSKINJA, Miha |
| 15:35 | [96] $H \rightarrow \mu\mu$ [CMS] (15') | RIEGER, Jan Oliver |
| 15:50 | [150] $H \rightarrow \mu\mu$ Discussion | |

Wednesday, 28 October 2020

Parallel: Beyond the Standard Model I (12:30 - 14:00)

-Conveners: stefania gori; Jana Schaarschmidt; Cecile Sarah Caillol

| time | [id] title | presenter |
|-------|---|---------------|
| 12:30 | [137] Additional neutral heavy Higgs in fermion decays (mumu, tautau, bb, ttbar) at ATLAS and CMS (15' + 7') | BARAK, Liron |
| 12:52 | [138] Additional neutral heavy Higgs in diboson decays (WW, ZZ, gamgam) and A->ZH at ATLAS and CMS (15' + 7') | DUDA, Dominik |
| 13:14 | [135] Interference effects in heavy Higgs searches (15' + 7') | LIU, Zhen |
| 13:36 | [136] Heavy Higgs in neutral naturalness models (Cancelled) | |

Parallel: Effective Field Theory I (12:30 - 14:00)

-Conveners: Brivio Ilaria; Nicolas Berger; Andrew Gilbert

| time | [id] title | presenter |
|-------|--|-----------------------|
| 12:30 | [126] Higgs EFT measurements in ATLAS (25' + 5') | MOSER, Brian |
| 13:00 | [147] Higgs EFT results from CMS (25' + 5') | SHARMA, Ashish |
| 13:30 | [128] geoSMEFT and applications (15' + 5') | TROTT, Michael Robert |
| 13:50 | [129] Discussion (10') | |

Parallel: Precision Higgs III (12:30 - 14:00)

-Conveners: Sarah Heim; Alicia Calderon Tazon; Bernhard Mistleberger

| time | [id] title | presenter |
|-------|--|------------------------|
| 12:30 | [105] [ATLAS+CMS] Combined Higgs measurements STXS and kappas, including kappa interpretations (15'+5') | MUNGO, Davide Pietro |
| 12:50 | [106] [ATLAS+CMS] Higgs-vector boson CP studies, incl. H->4l anomalous couplings and H->tautau VBF CP (15'+5') | KIM, Doyeong |
| 13:10 | [100] Monte-Carlo Uncertainties for Higgs Boson Production in Vector Boson Fusion (15'+5') | Dr KARLBERG, Alexander |
| 13:30 | [107] [ATLAS+CMS] Higgs mass measurements (15'+5') | ERRICO, Filippo |

Parallel: Beyond the Standard Model II (14:20 - 15:50)

-Conveners: Jana Schaarschmidt; Cecile Sarah Caillol; stefania gori

| time | [id] title | presenter |
|-------|--|------------------------|
| 14:20 | [140] Additional neutral light Higgs at ATLAS and CMS (15' + 7') | PEREZ ADAN, Danyer |
| 14:42 | [141] Charged Higgs at ATLAS and CMS (15' + 7') | Dr ATTIKIS, Alexandros |
| 15:04 | [139] Composite Higgs models (15' + 7') | LIU, Da |
| 15:26 | [142] Higgs exotic decays (15' + 7') | SHUVE, Brian |

Parallel: Effective Field Theory II (14:20 - 15:50)

-Conveners: Nicolas Berger; Ilaria Brivio; Andrew Gilbert

| time | [id] title | presenter |
|-------|--|----------------------------|
| 14:20 | [133] Controlling uncertainties of the IAM dispersive unitary extension of EFTs (15' + 5') | SALAS-BERNÁRDEZ, Alexandre |
| 14:40 | [148] Constraining SMEFT operators with associated $\gamma\gamma$ production in Weak Boson Fusion (15' + 5') | GREGG, Parisa |
| 15:00 | [130] Putting SMEFT Fits to Work (15' + 5') | HOMILLER, Samuel |
| 15:20 | [131] JHU generator framework: new features for Higgs boson studies (15' + 5') | SARICA, Ulascan |
| 15:40 | [149] Discussion (10') | |

Parallel: Precision Higgs IV (14:20 - 15:50)

-Conveners: Bernhard Mistleberger; Alicia Calderon Tazon; Sarah Heim

| time | [id] title | presenter |
|-------|---|-------------------------|
| 14:20 | [108] Projections for Higgs measurements at the HL-LHC (15'+5') | DUTTA, Irene |
| 14:40 | [109] Parton Distribution Functions for Higgs Physics at the HL-LHC (15'+5') | Dr HARLAND-LANG, Lucian |
| 15:00 | [110] Electroweak Couplings of the Higgs Boson at a Multi-TeV Muon Collider (15'+5') | WANG, Xing |
| 15:20 | [111] Precision measurements of Higgs boson properties at future ep-em colliders: What are the challenges? (15'+5') | DURIEUX, Gauthier |

Thursday, 29 October 2020

Parallel: Beyond the Standard Model III (12:30 - 14:00)

-Conveners: Jana Schaarschmidt; stefania gori; Cecile Sarah Caillol

| time | [id] title | presenter |
|-------|---|--|
| 12:30 | [143] Xenon1T excess (15' + 7') | ROCCHETTI, Arianna ROCCHETTI, Arianna |
| 12:52 | [144] DM produced in association with H at ATLAS and CMS (15' + 7') | MEEHAN, Samuel Ross |
| 13:14 | [146] LFV, rare decays and invisible Higgs decays at ATLAS and CMS (15' + 7') | SIDDIREDDY, Prasanna Kumar |
| 13:36 | [145] Higgs and flavor (15' + 7') | HOMILLER, Samuel |

Parallel: Di-Higgs and self-coupling III (12:30 - 14:00)

-Conveners: Mauro Donega; Katharine Leney; Christoph Peter Englert

| time | [id] title | presenter |
|-------|--|---|
| 12:30 | [122] Measurement prospects for Higgs pair-production at the HL-LHC (15'+5') | NIKOLOPOULOS, Konstantinos |
| 12:50 | [123] Prospects for measuring the Higgs self-coupling at future colliders (15'+5') | SELVAGGI, Michele |
| 13:10 | [124] HL-LHC and Future Collider prospects for HH from a theoretical perspective: extrapolations and other channels (15'+5') | BANERJEE, Shankha Dr BANERJEE, Shankha |
| 13:30 | [125] Triple Higgs and quartic interactions at future colliders (incl. muon colliders) (15'+5') | MELE, Barbara |

Parallel: Yukawa couplings III (12:30 - 14:00)

-Conveners: Tamara Vazquez Schroeder; Yotam Soreq; Chris Palmer

| time | [id] title | presenter |
|-------|--|----------------------|
| 12:30 | [89] Top Yukawa ($t\bar{t}H/tH$, $H \rightarrow b\bar{b}$, $\gamma\gamma$) [ATLAS+CMS] (15'+5') | CONNELLY, Ian Allan |
| 12:50 | [90] Top Yukawa ($t\bar{t}H/tH$ multilepton, $t\bar{t}\bar{\nu}$) [ATLAS+CMS] (15'+5') | RAMON ALVAREZ, Clara |
| 13:10 | [103] Strange-tagging in future colliders (15'+5') | SCHLAFFER, Matthias |
| 13:30 | [104] Correlating $H \rightarrow \mu^+\mu^-$ to the Anomalous Magnetic Moment of the Muon via Leptoquarks (15'+5') | CRIVELLIN, Andreas |