

KIT-NEP '19 - Theory Challenges in Higher-Order NEw Physics Calculations

Monday, October 7, 2019

Workshop session: Renormalization of Extended Higgs Sectors - 30.35 Hochspannungstechnik-Hörsaal (HSI) (10:00 AM - 12:00 PM)

-Conveners: Heidi Rzehak

time	[id] title	presenter
10:00 AM	[7] Welcome	
10:10 AM	[8] Renormalization of mixing angles in extended Higgs sectors	DITTMAIER, Stefan
10:40 AM	[9] Renormalization of the 2HDM and the N2HDM	SANTOS, Rui
11:10 AM	[10] Renormalization of Extended Higgs Sectors	LÖSCHNER, Maximilian
11:40 AM	[11] Discussion time	

Workshop session: Symmetries and Higher-Order Corrections - 30.35 Hochspannungstechnik-Hörsaal (HSI) (1:30 PM - 3:40 PM)

-Conveners: Mark Goodsell

time	[id] title	presenter
1:30 PM	[12] Custodial Symmetry Violation in the Georgi-Machacek Model	LOGAN, Heather
2:00 PM	[13] MSSM Higgs Boson Production via Gluon Fusion: The Large Gluino Mass Limit	RZEHAKE, Heidi
2:30 PM	[14] Revisiting the hMSSM	LIEBLER, Stefan
2:50 PM	[15] Parametrically enhanced corrections in supersymmetry, i.e. Δ_b corrections	SPIRA, Michael
3:20 PM	[16] Discussion time	

Workshop session: Renormalization and Gauge Dependences in Higher-Order Corrections - 30.35 Hochspannungstechnik-Hörsaal (HSI) (4:10 PM - 6:00 PM)

-Conveners: Dominik Stöckinger

time	[id] title	presenter
4:10 PM	[17] On-Shell Renormalization of Higgs Boson Masses	PASSEHR, Sebastian
4:40 PM	[18] Gauge Dependences of NMSSM Higgs Boson Decays including Higher-Order Corrections	DOMINGO, Florian
5:10 PM	[19] Gauge Dependences in Higher-Order Corrected NMSSM Higgs Boson Decays and Masses	FRITZ, Lukas
5:40 PM	[20] Discussion time	

Tuesday, October 8, 2019

Workshop session: Enhanced Higgs-to-Higgs Decays - 30.35 Hochspannungstechnik-Hörsaal (HSI) (9:00 AM - 10:50 AM)

-Conveners: Stefan Dittmaier

time	[id] title	presenter
9:00 AM	[21] Probing the Higgs sector using the synergy of future experiments	KANEMURA, Shinya
9:30 AM	[22] On two-loop corrections to the Higgs trilinear coupling in models with extended scalar sectors	BRAATHEN, Johannes
10:00 AM	[23] Enhanced corrections in Higgs-to-Higgs decays of the 2HDM and N2HDM	KRAUSE, Marcel
10:25 AM	[24] NLO electroweak corrections to $H \rightarrow hh$ decays in the singlet extension	ROBENS, Tania

Workshop session: Stability of BSM Higgs Potentials - 30.35 Hochspannungstechnik-Hörsaal (HSI) (11:20 AM - 1:00 PM)

-Conveners: Ansgar Denner

time	[id] title	presenter
11:20 AM	[27] Impact of Vacuum Stability Constraints on the Phenomenology of Supersymmetric Model	HOLLIK, Wolfgang G.
11:50 AM	[28] Vacuum stability and supersymmetry at high scales with two Higgs doublets	BAGNASCHI, Emanuele
12:20 PM	[26] Higher-Order Minima in the Inert Doublet Model and Vacuum Instabilities in the N2HDM	FERREIRA, Pedro
12:50 PM	[47] Discussion time	

Workshop session: Higher-Order Mass Corrections - 30.35 Hochspannungstechnik-Hörsaal (HSI) (2:30 PM - 4:15 PM)

-Conveners: Shinya Kanemura

time	[id] title	presenter
2:30 PM	[29] Recent progress on higher-order corrections to Higgs boson masses in SUSY extensions	STÖCKINGER, Dominik
3:00 PM	[30] The Goldstone boson catastrophe arising in higher-order corrections to Higgs boson masses, and its possible solutions	GOODSELL, Mark
3:30 PM	[31] Pole mass determination in the presence of heavy particles	BAHL, Henning
4:00 PM	[32] Discussion time	

Workshop session: Higgs Pair Production - 30.35 Hochspannungstechnik-Hörsaal (HSI) (4:45 PM - 6:30 PM)

-Conveners: Michael Spira

time	[id] title	presenter
4:45 PM	[33] Higgs pair production in BSM models and EFT approaches including QCD corrections	VRONIDOU, Eleni

5:15 PM	[34] Higher order corrections in Higgs boson pair production within and beyond the SM	HEINRICH, Gudrun
5:45 PM	[35] Higgs Pair Production: top-mass uncertainties in NLO QCD corrections	GLAUS, Seraina
6:15 PM	[36] Discussion time	

Wednesday, October 9, 2019

Workshop session: Young Scientist Forum - 30.35 Hochspannungstechnik-Hörsaal (HSI) (9:00 AM - 10:00 AM)

-Conveners: Eleni Vryonidou

time	[id] title	presenter
9:00 AM	[37] Precise calculations of Higgs decay rates in extended Higgs sectors	SAKURAI, Kodai
9:15 AM	[38] Parton-shower Effects in Electroweak $WZjj$ Production at the Next-to-Leading Order of QCD	SHELLER, Johannes
9:30 AM	[39] Soft-gluon resummation for leptoquark pair-production at the LHC	BORSCHENSKY, Christoph
9:45 AM	[40] Dark matter pair production in the MSSM and in simplified dark matter models at the LHC	CONIGLIO, Gabriele

Workshop session: Composite Higgs and EFTs - 30.35 Hochspannungstechnik-Hörsaal (HSI) (10:30 AM - 1:15 PM)

-Conveners: Eleni Vryonidou; Gudrun Heinrich

time	[id] title	presenter
10:30 AM	[41] EFTs with Two Higgs Doublets	GHEZZI, Margherita
11:00 AM	[42] A Concrete Composite 2-Higgs Doublet Model	DE CURTIS, Stefania
11:30 AM	[43] NLO Higgs effective field theory and Kappa framework	GOMEZ AMBROSIO, Raquel
12:00 PM	[45] Outlook	GROJEAN, Christophe
12:40 PM	[46] Farewell	