

HP2.5 Program

Wednesday 3

8:30 - 9:00 **Registration and Opening**

9:00 - 10:00 **Precision Physics at the LHC: yesterday, today and tomorrow, HUSTON, Joey (Michigan State University (US))**

10:00 - 10:30 **Multi-jet production at NLO with NJet, YUNDIN, Valery (Max Planck Institute for Physics)**

10:30-11:00 **Coffee Break**

11:00 - 11:30 **NLO QCD predictions on the ratio of ttbb and ttjj production at the LHC, BEVILACQUA, Giuseppe (INFN LNF)**

11:30 - 12:00 **Using OpenLoops for one-loop scattering amplitudes, MAIERHÖFER, Philipp (Universität Zürich)**

12:00 - 12:30 **Simplified differential equations approach to Master Integrals at NNLO, PAPADOPOULOS, Costas (Nat. Cent. for Sci. Res. Demokritos (GR))**

12:30 - 14:00 **LUNCH**

14:00 - 14:30 **News from MadGraph5_aMC@NLO, FREDERIX, Rikkert (CERN)**

14:30 - 15:00 **NLO Event Simulation with Herwig++, PLÄTZER, Simon (DESY)**

15:00 - 15:30 **W gamma production at the LHC at NLOPS accuracy, PROSPERI, Valeria (Universita e INFN Pavia (IT))**

15:30 - 16:00 **Coffee Break**

16:00 - 16:30 Towards NLO parton shower MC, JADACH, Stanislaw (IFJ PAN Krakow)

16:30 - 17:00 Multijet merging at NLO with SHERPA, KRAUSS, Frank Martin (University of Durham (GB))

17:00 - 17:30 An asymptotic solution of large-N QCD, BOCHICCHIO, Marco (SNS Pisa and INFN Roma1)

17:30 - 18:00 NNLO QCD corrections to $pp \rightarrow \gamma^* \gamma^*$ in the large NF limit, Mueller, Romain (ETH, Zurich)

Thursday 4

9:00 - 9:30 Jets in pp at NNLO, PIRES, Joao (Milano Bicocca)

9:30 - 10:00 Subtraction method for QCD jet cross sections, TROCSANYI, Zoltan Laszlo (University of Debrecen (HU))

10:00-10:30 Towards differential top pair production at NNLO, ABELOF, Gabriel (Northwestern University)

10:30-11:00 Coffee Break

11:00 - 11:30 Diboson production in NNLO QCD, RATHLEV, Dirk (University of Zurich)

11:30 - 12:00 NNLO Higgs plus Vector boson production at the LHC, TRAMONTANO, Francesco (Universita e INFN Napoli (IT))

12:00 - 12:30 Higgs pair production at the LHC, VRYONIDOU, Eleni (Universite catholique de Louvain)

12:30 - 14:00 LUNCH

14:00 - 14:30 Electroweak NLOPS for the Higgs decay into four charged leptons, CARLONI CALAME, Carlo (University of Pavia)

14:30 - 15:00 **Higgs-continuum and Higgs-Higgs interference effects in $gg \rightarrow VV$** , KAUER, Nikolas (RHUL)

15:00 - 15:30 **Interference in the gluon-initiated Z-pair plus jet production**, FURLAN, Elisabetta (Fermilab)

15:30 - 16:00 **Coffee Break**

16:00 - 16:30 **NLO Higgs Phenomenology with GoSam**, LUISONI, Gionata (Max Planck Institute for Physics)

16:30 - 17:00 **Towards N^3 LO QCD Higgs production cross section**, UEDA, Takahiro (Karlsruhe)

17:00 - 17:30 **Calculating the double-virtual real corrections to Higgs production at N^3 LO**, DULAT, Falko (ETH, Zurich)

17:30 - 18:00 **Threshold expansion for Higgs boson production at N^3 LO**, MISTLBERGER, Bernhard (ETH, Zurich)

19:00 - 20:00 Visit to "Villa il Gioello" (Galileo's house)

20:00 Workshop Dinner, Trattoria Omero

Friday 5

9:00 - 9:30 **High-precision predictions for the lightest Higgs boson mass in the MSSM**, MIHAILA, Luminita (TTP-University of Karlsruhe)

9:30 - 10:00 **Precision observables of compositeness**, PASECHNIK, Roman (Lund University)

10:00-10:30 **High-energy resummation effects in Mueller-Navelet jet production at the LHC**, SZYMANOWSKI, Lech (National Centre for Nuclear Research Warsaw)

10:30-11:00 **Coffee Break**

11:00 - 11:30 Vector boson production and decay in hadron collisions: transverse-momentum resummation at NNLL accuracy, FERRERA, Giancarlo (University of Milan)

11:30 - 12:00 Universality of transverse momentum and threshold resummations, and results up to N^3 LO and N^3 LL, CIERI, Leandro (La Sapienza, Roma I)

12:00 - 12:30 Soft-gluon resummation for gluon-induced Higgs-Strahlung, THEEUWES, Vincent (University of Muenster)

12:30 - 14:00 LUNCH

14:00 - 14:30 Higgs production in the MSSM: Transverse momentum resummation, WIESEMANN, Marius (Universitaet Zuerich (CH))

14:30 - 15:00 Four Dimensional Regularization/Renormalization (FDR) of (non)-renormalizable QFTs at 1-loop and beyond, PITTAU, Roberto (Universidad de Granada (ES))

15:00 - 15:30 Infrared divergences at high orders, MAGNEA, Lorenzo (Università di Torino e INFN Torino)

Schedule includes discussion time (i.e. 30 minutes: 22 (talk)+8(discussion))