

## CONFERENCE PROGRAMME

Wednesday, 15 September 2021

13:45 — 16:00 Morning session

13:45 — Janusz Gluza, *MTTD 2021 — opening*14:00 — German Rodrigo, *The future of particle physics — outreach talk*15:00 — Alex Keshavarzi, *First results from the Fermilab Muon  $g-2$  experiment*15:30 — Robert Szafron, *Theoretical uncertainties due to missing higher orders in perturbative computations*

16:30 — 18:30 Afternoon session

16:30 — Rabindra Mohapatra, *Baryogenesis and neutron–anti-neutron oscillation*17:00 — Biswajit Karmakar, *A minimal flavor model for neutrino mass and leptogenesis*17:30 — Károly Sella, *Sterile neutrino dark matter in the super-weak extension of the Standard Model*18:00 — Simonas Draukšas, *On the on-shell renormalization of fermion Masses, fields, and mixing matrices at 1-loop*

Thursday, 16 September 2021

11:00 — 13:00 Morning session

11:00 — Katharina Voß, *Theory input for  $t\bar{t}j$  experimental analyses at the LHC*11:30 — Giuseppe Bevilacqua,  *$t\bar{t}b\bar{b}$  at the LHC: On the size of corrections and  $b$ -jet definitions*12:00 — Gábor Somogyi, *Determination of  $\alpha_S$  beyond NNLO using event shape averages*12:30 — Thomas Lenz, *Experimental input to the Standard Model prediction of  $g-2$* 

14:00 — 18:30 Afternoon session

14:00 — Aleksander Filip Żarnecki, *Sensitivity of future  $e^+e^-$  colliders to processes of dark matter production with light mediator exchange*14:30 — Norma Selomit Ramírez Uribe, *From causal representations of multiloop scattering amplitudes to quantum computing in the loop-tree duality*15:00 — Sam Van Thurenhout, *Renormalization of non-singlet quark operator matrix elements for off-forward hard scattering*15:30 — Andrzej Siódmok, *Novel approach to measure quark and gluon jets at the LHC*16:30 — Carlo Giunti, *Neutrino properties from coherent elastic Neutrino-Nucleus Scattering*17:00 — Timo Kärkkäinen, *Neutrino physics in gauged  $U(1)$  extensions of the standard model*17:30 — Seweryn Kowalski, *New results from strong interactions program of NA61/SHINE*18:00 — Andrzej Czarnecki, *Phenomena in nontrivial background fields*

Friday, 17 September 2021

- 11:00 — 13:00 Morning session
- 11:00 — Joris Vergeest, *Lepton flavor symmetry in a three-Higgs doublet model*
- 11:30 — Wojciech Kotlarski, *FlexibleDecay: An automated calculator of scalar decay widths*
- 12:00 — Gábor Cynolter, *Unitarity in multi-Higgs production using Schwinger–Dyson equations*
- 12:30 — Vytautas Dūdėnas, *Low seesaw scale in the Grimus–Neufeld model*
- 14:00 — 18:40 Afternoon session
- 14:00 — Matthew McCullough, *Physics opportunities at future colliders*
- 14:30 — Joydeep Chakraborty, *Can EFT be used to understand the nature of new physics?*
- 15:00 — Andrej Arbuzov, *Asymmetries in processes of electron–positron Annihilation*
- 15:30 — Adam Kardos,  *$W$ +charm production with massive  $c$  quarks in PowHel*
- 16:30 — Jose Wudka, *Flavor physics in di- and tri-lepton events from single-top production at the LHC*
- 17:00 — Martiros Khurshudyan, *Machine learning powered cosmology*
- 17:30 — Aleksandra Piórkowska-Kurpas, *Fundamental properties of Nature: new opportunities for testing in the age of multi-messenger astronomy*
- 18:00 — Anna Socha, *Higgs-boson induced reheating*
- 18:30 — Bartosz Dziewit, *Final remarks and goodbye*