

Monday 1/05/23. Dark matter.

8:30-9:15 Registration

9:15-9:30 Welcome and opening

9:30-10:30 A. Ibarra, Particle dark matter: old and new probes

10:30-11:00 Coffee

11:00-11:45 G. Qerimi, Effective Field Theories for Dark Matter Pairs in the Early Universe

11:45-12:30 B. Lehman, Kinetic recoupling of dark matter

12:30-14:30 Lunch

14:30-15:15 A. Socha, Higgs boson-induced reheating and its implications for dark matter

15:15-16:00 J. C. Park, GLIMPSE: Graphene-based Light Invisible Matter Particle Search

16:00-16:30 Coffee

16:30-17:00 Discussion. Dark matter. Lead by B. Lehman and S. Witte

Tuesday 2/05/23. Gravitational waves and beyond

9:30-10:30 N. Stergioulas, Astrophysics with Gravitational Waves from Compact Binary Coalescences [Online talk]

10:30-11:00 Coffee

11:00-11:45 Y. Bai, Origin of nontopological soliton dark matter and gravitational waves

11:45-12:30 Y. Xu, Gravitational Wave from Graviton Bremsstrahlung during Reheating

12:30-14:30 Lunch

14:30-15:15 T. Steingasser, Bubble nucleation rates at 1-loop from first principles

15:15-16:00 M. Vanvlasselaer, Baryogenesis with relativistic walls

16:00-16:30 Coffee

16:30-17:00 Discussion. Gravitational waves. Lead by Y. Bai

Wednesday May 3/05/23. Nonstandard gravity

9:30-10:30 S. Odintsov, Unifying the early-time inflation with Late-time dark energy epoch: the case of modified gravity

10:30-11:00 Coffee

11:00-11:45 O. Kaikov, How special are black holes? Correspondence with objects saturating unitarity bounds in generic theories

11:45-12:30 C. Renevey, Exploring the non-singular bounce from spatial curvature in inflationary cosmology and its potential CMB imprints

12:30 - Lunch and social events

Thursday May 4/05/23. Inflation

9:30-10:30 Bastero-Gil. Cosmic Inflation: from CMB scales to reheating

10:30-11:00 Coffee

11:00-11:45 B. Barman, Gravity as a Portal to Reheating, Leptogenesis and Dark Matter

11:45-12:30 C. Pallis, High-Scale Supersymmetry from Inflection-Point Sgoldstino Inflation

12:30-14:30 Lunch

14:30-15:15 A. Mantziris, Cosmological implications of the Higgs vacuum metastability during inflation

15:15-16:00 Discussion. Inflation

16:00-16:30 Coffee

Friday 5/05/23. Particle physics modelling

9:30-10:30 Witte. How to Relax the Hubble Tension.

10:30-11:00 Coffee

11:00-11:45 I. Nalecz, First-order phase transitions in Twin Higgs models

11:45-12:30 A. N. Tawfik, Perturbative and Non-Perturbative Equations of State and Bulk Viscosity Early Universe

Free afternoon