

COST ADVANCED SCHOOL

PHYSICS OF DARK MATTER AND

HIDDEN SECTORS



From Theory to Experiment

Lund, October 18-21st 2021



LUND
UNIVERSITY

Invited lecturers

- Sergey Burdin** - Dark Matter direct searches
- Carlos Herdeiro** - Black holes, bosonic stars and ultralight Dark Matter
- Antonio Morais** - Models for ultra-light Dark Sectors
- Alexander Belyaev** - Towards the Consistent Dark Matter exploration
- Kimmo Tuominen** - Dark matter through the Higgs portal
- Andrea Addazi** - Phase Transitions and Primordial Black Holes from Dark Sectors
- Monica D'Onofrio** - The Dark Matter quest at colliders
- Zhi-Wei Wang** - Strongly-Coupled Hidden Sectors
- Giacomo Cacciapaglia** - composite Goldstone Dark Matter
- Antonino Marciano** - Gravitational Wave probes for Dark Matter
- Caterina Doglioni** - Dark Matter complementarity
- Andy Buckley** - Using precision measurements to constrain new physics models with CONTUR
- Rebeca Gonzalez Suarez** - Non-standard collider signatures: long-lived particles
- Pedro M. Ferreira** - Dark phases of multi-scalar models
- Felipe Freitas** - Machine-Learning methods for Dark Sector searchers
- Rui Santos** - Particle Physics anomalies from Dark Matter
- Wei-Chih Huang** - Dark Sectors for matter asymmetry and neutrino physics

Organising Committee

- Roman Pasechnik** (chair)
- Monica D'Onofrio**
- Caterina Doglioni**
- Rebeca Gonzalez Suarez**
- Antonio Morais**
- Zhi-Wei Wang**

Public lecture

The physics garage: From Strings Theory to Pandemics

Francesco Sannino

Register at

<https://indico.lucas.lu.se/event/2115/>

