

February 21, 2020, Galileo Galilei Institute, Firenze

# Florence Theory Group Day

## Program

08:55 - 09:00 Welcome

09:00 - 09:20 Casetti: *Long-range-interacting systems out of equilibrium.*

09:20 - 09:40 Livi: *Negative absolute temperatures.*

09:40 - 10:00 Banchi: *Variational Hybrid Quantum-Classical Optimization.*

10:00 - 10:20 Campisi: *Quantum Measurement Cooling.*

10:20 - 10:40 Verrucchi: *Black holes as macroscopic quantum systems.*

10:40 - 11:00 Caruso: *Open Quantum Systems: state discrimination, information speed limit and optimal control.*

### 11:00 - 11:20 coffee break

11:20 - 11:40 Galli: *The first law of complexity.*

11:40 - 12:00 Braccia: *Complexity in the presence of a boundary.*

12:00 - 12:20 Cappelli: *Topological Phases of Matter and Bosonization.*

12:20 - 12:40 Seminara: *One dimensional defect theories.*

12:40 - 13:00 Viti: *Entanglement dynamics in 1d massive systems: a perturbative QFT approach.*

13:00 - 13:20 Colomo: *Arctic Curves and limit shapes.*

### 13:20 - 14:20 lunch break

14:20 - 14:40 Cieri: *Precision Physics at the LHC.*

14:40 - 15:00 Dhani: *QCD prediction for transverse momentum spectrum at hadron colliders.*

15:00 - 15:20 Becattini: *Quantum relativistic matter.*

15:20 - 15:40 Buzzegoli: *Thermodynamic equilibrium of fermions with vorticity, chirality and magnetic field.*

15:40 - 16:00 Lombardo: *Theoretical Physics & Computing.*

### 16:00 - 16:20 coffee break

16:20 - 16:40 Panico: *Machine learning for precision physics.*

16:40 - 17:00 Redi: *Bound states of dark matter.*

17:00 - 17:20 Cotrone: *The Holographic QCD axion.*

17:20 - 17:40 Delle Rose: *Phase Transitions and gravity waves.*

17:40 - 18:00 Colferai: *Gravitational scattering and Hawking-like radiation in the eikonal approach.*



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