

Galileo Galilei Institute. March 25, 2024

# Florence Theory Group Day

## Program

- 09:15 - 09:30 Welcome (Stefania De Curtis, Duccio Fanelli, Giovanni Passaleva).  
09:30 - 09:50 Marko Simonovic: *Theory of matter density fluctuations on cosmological scales.*  
09:50 - 10:10 Tiziano Schiavone: *Varying Hubble constant in the  $f(R)$  modified gravity.*  
10:10 - 10:30 Giordano Cintia: *Dark Matter Superfluidity in galaxies.*  
10:30 - 10:50 Michele Tammaro: *Learning the composition of Ultra-High Energy Cosmic Rays.*

## 10:50 - 11:20 coffee break

- 11:20 - 11:40 Lorenzo Chicchi: *Input relevance analysis driven by spectral learning.*  
11:40 - 12:00 Lorenzo Giambagli: *Interplay between topology and dynamics in simplicial complex.*  
12:00 - 12:20 Giuseppe Ortolano: *Applications of Quantum channel discrimination.*  
12:20 - 12:40 Li Gan: *Algebraic area of lattice random walks and exclusion statistics.*  
12:40 - 13:00 Andrea Maroncelli: *The arctic curves of the four-vertex model.*

## 13:00 - 14:30 lunch break

- 14:30 - 14:50 Dimitri Colferai: *QCD in Florence: the legacy of Stefano Catani.*  
14:50 - 15:10 Xin-Li Sheng: *Global spin alignment of vector mesons in heavy ion collisions.*  
15:10 - 15:30 Sushant Kumar Singh: *Vorticity in critical QGP fluid.*  
15:30 - 15:50 Giancarlo Mattia: *Magnetic reconnection in short gamma-ray burst jets.*  
15:50 - 16:10 Pierfrancesco Di Cintio: *Binary BHs inspirals in dark matter cusps. Combined effect of post-Newtonian terms and dynamical friction.*

## 16:10 - 16:40 coffee break

- 16:40 - 17:00 Natalia Pinzani Fokeeva: *Near horizon symmetries, hydrodynamics, and chaos.*  
17:00 - 17:20 Jose Manuel Penin Ascariz: *Applications of the holographic duality.*  
17:20 - 17:40 Stefania Caggioli: *Holographic thermal entropy from geodesic bit threads.*  
17:40 - 18:00 Tommaso Canneti: *Hagedorn temperature in string and gauge theories.*

## 18:00 -19:00 reception



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