

Talk Jean-Philippe Brantut: All-to-all interacting quantum gases for quantum simulation

Monday 30 September 2024 14:30 (1 hour)

All-to-all interacting quantum gases for quantum simulation

I will present the progresses of my group in the engineering of long-range, all-to-all interacting quantum gases realized by placing cold Fermi gases in high-finesse cavities. I will then describe our experimental progresses towards the realization of random interactions, allowing in principle for the experimental realization the Sachdev-Ye-Kitaev model, a paradigmatic example of holographic quantum matter.