Contribution ID: **20** Type: **not specified**

Transitions in monitored quantum circuits

Thursday 2 October 2025 09:00 (40 minutes)

Monitored many-body quantum system shows a rich phenomenology that is invisible at the level of its average state, the density matrix. Measurement induced phase transitions were discovered in a variety of systems ranging from quantum circuits in the presence of projective measurements to unravelled dynamics of open systems. I will analize a variety of dynamical transitions, and the corresponding phase diagram, taking place in quantum circuits. These include separate critical phenomena involving entanglement and non-stabilizereness.

References:
P. Sierant, G. Chiriacò, F.M. Surace, S. Sharma, X.Turkeshi, M. Dalmonte, R. Fazio, and G. Pagano, Quantum 6, 638 (2022)
G. Fux, E. Tirrito, M. Dalmonte, and R. Fazio Phys. Rev. Res. 6, L042030 (2024)

Presenter: FAZIO, Rosario

Session Classification: Keynote Speakers