

# **Perturbations in horizonless geometries, Quasi Normal modes, Echoes and Tidal deformations**

*Tuesday, 25 June 2024 15:00 (15 minutes)*

New methods have emerged in the context of black hole perturbation theory, which are based on the correspondence between the equations describing the propagation of waves in these geometries and the Seiberg-Witten curves for an  $N=2$  SYM theory with  $SU(2)$  gauge group in the non-commutative Nekrasov-Shatashvili background. These techniques are employed to compute observables such as quasi-normal modes, tidal deformations, and amplification factors, aiming to distinguish black holes from other compact geometries.

**Presenter:** DI RUSSO, Giorgio

**Session Classification:** Parallel session