



Department of  
Theoretical Physics

# THE QUANTUM SPACETIME SEMINAR SERIES

**Fluctuating Hydrodynamics from holography**

(Zoom Seminar)

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**Date:** November 29, 2021

**Time:** 11.00 AM IST

Zoom link shall be shared separately



AdS/CFT duality implies that certain large  $N$  strongly coupled Conformal Field Theories have an alternate description as weakly coupled gravitational theories. The fluid-gravity correspondence is a well studied implication of the duality - the hydrodynamic excitations of a holographic plasma are related to the long-lived quasinormal modes of the dual blackbrane. We revisit this old problem from the perspective of the Open Effective Field Theory of the simmering hydrodynamic modes. The analysis relies on a novel gravitational saddle to evaluate real-time correlators which is crucial to correctly account for the Hawking fluctuations of the blackbrane in addition to the dissipative quasinormal modes.