

The Hebrew University of Jerusalem , Joint High Energy Physics Seminars

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The White Dove Conference Hall at Nave-Shalom (Wahat al-Salam)

"Holographic Quantum Quenches"

We exploit gauge theory/string theory correspondence to study quantum quenches in strongly coupled gauge theory plasma. Specifically, we consider the response of a thermal equilibrium state of the theory under variations of the coupling of a relevant operator. We discuss the transition from the 'adiabatic' regime (quenches slow on a thermal time-scale) to 'abrupt' changes (quenches fast on a thermal time-scale), and comment on the universal behavior in latter case. We discuss evolution of the apparent and the event horizons in the dual geometry; the two-point correlation functions of operators of large conformal dimensions; and the evolution of the entanglement entropy of the system. We compare the thermalization process from the viewpoint of local (the one-point correlation functions) and these nonlocal probes.

Additional details of the upcoming joint High Energy Physics' seminars can be found on the following link - [Joint High Energy Physics Seminars](#)