



TATA INSTITUTE OF FUNDAMENTAL RESEARCH

## **ICTS String Seminar**

**Title**: Near-extremal quantum field theories in two dimensions

**Speaker**: Ankit Aggarwal (TU Wien Vienna, Austria)

Date : Monday, 03 February 2025

**Time** : 3:30 PM (IST)

**Abstract**: Near-extremal black holes exhibit universal features such as the near-extremal behaviour of

entropy and black hole energy as a function of temperature. These are captured by Jackiw-Teitelboim (JT) gravity in the bulk. One could ask: is it possible to see this universality emerging purely from the dual QFT side? We answer this question in the affirmative through three examples of two-dimensional QFTs: 2d CFTs, Warped CFTs, and Carrollian CFTs. We describe the regimes of these theories in which the aforementioned universal behaviour is observed. We compare and contrast it to the universal Cardy regime

of these theories.

**Venue**: Chern Lecture Hall

Zoom Link: https://icts-res-in.zoom.us/j/88092766911?pwd=R3ZrVk9yeW96ZmQ4ZG9KRzVhenRKZz09

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