



## ICTS String Seminar (HYBRID)

**Title** :  $\text{AdS}_2/\text{CFT}_1$  holography at finite charge density

**Speaker** : Hemant Rathi, IIT Roorkee

**Date** : Thursday, 31<sup>st</sup> August, 2023

**Time** : 03:00 PM (IST)

**Abstract** : I will briefly discuss  $\text{AdS}_2/\text{CFT}_1$  holography, also known as JT/SYK duality, and explore various generalizations of JT gravity involving  $U(1)$  gauge fields and  $SU(2)$  Yang-Mills interactions. In particular, we will investigate the effects of non-trivial gauge couplings on the thermal properties of black holes/wormholes and examine the possibilities of the Hawking-Page transition and wormhole to black hole phase transition in two dimensions. Additionally, we will examine the transformation properties of the boundary stress-energy tensor under diffeomorphism and  $U(1)$  gauge transformation, thereby computing the central charge associated with the 1D boundary theory.

**Venue** : **Offline:** Madhava Lecture Hall (ICTS)

**Online:** Please click the below link to join the seminar

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