



ICTS String Seminar

Title : Emanant Symmetries

Speaker : Nathan Seiberg (IAS, Princeton)

Date : Monday, 30th October 2023

Time : 6:30 PM (IST)

Abstract : Based on joint work with Meng Cheng (arXiv:2211.12543), with Shu-Heng Shao (arXiv: 2307.02534), and with Shu-Heng Shao and Sahand Seifnashri (to appear), we will discuss some aspects of global symmetries and their 't Hooft anomalies. We will define a notion of an emanant global symmetry. It is not a symmetry of the UV theory, but unlike emergent (accidental) symmetries, it is not violated by any relevant or irrelevant operators in the IR theory. It is an exact symmetry of the low-energy theory. We will demonstrate this notion in several well-known examples. We will discuss in detail the Majorana chain, the transverse field Ising model, a continuum system with a chemical potential, and the Heisenberg chain. In all these models, we will find emanant symmetries. In one case, it is a non-invertible emanant symmetry.

Venue : Online

Zoom link: <https://icts-res->

[in.zoom.us/j/88092766911?pwd=R3ZrVk9yeW96ZmQ4ZG9KRzVhenRKZz09](https://icts-res-in.zoom.us/j/88092766911?pwd=R3ZrVk9yeW96ZmQ4ZG9KRzVhenRKZz09)

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