

ICTS Condensed Matter Seminar

- Title** : Full Classification of Transport on an Equilibrated $\nu=5/2$ Edge
- Speaker** : Sourav Manna (Weizmann Institute of Science and Tel Aviv University)
- Date** : Tuesday, 01st November 2022
- Time** : 03:00 pm (IST)
- Abstract** : The nature of the bulk topological order of the $\nu=5/2$ non-Abelian fractional quantum Hall state is a long-standing open question. There is more than one candidate, compatible with the experimental findings, namely anti-Pfaffian (APf) and particle-hole-Pfaffian (PHPf) states in full or partial thermal equilibration regimes [Banerjee et al. Nature 559, 205–210 (2018)]. Previous proposals can only characterize the APf state and its different edge equilibration regimes [Park et al. PRL 125, 157702 (2020)], or, alternatively identify the underlying non-Abelian models relying on the conditions of no edge equilibration which is hard to achieve in experiments [Yutushui et al. PRL 128, 016401 (2022)]. Here we propose a set of electrical shot noise measurements which can distinguish both between APf and PHPf bulk phases as well as between full or partial edge thermal equilibration regimes. Our scheme is implementable in the existing experimental platform.
- Venue** : **Hybrid Mode**
- Offline:** Emmy Noether Seminar Room
- Online:** Please click on the below link to join the seminar
- <https://icts-res-in.zoom.us/j/85396386214?pwd=RHdIWjZVdVg4OUYrMjBhei9yMHZOZz09>
Meeting ID: 853 9638 6214
Passcode: 010122