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TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Thesis Synopsis Seminar

Title : Aspects of thermal and conformal field theories

Speaker : Kasi Jaswin, ICTS-TIFR, Bangalore

Thesis Supervisors : Pallab Basu and R. Loganayagam

Date : Thursday, September 5, 2019

Time : 4:00 PM

Venue : Nambu Discussion Room (Left), ICTS Campus, Bangalore

Abstract : In this seminar, I shall be briefly describing some aspects of thermal and conformal field theories based on the following papers :

1. Complex Langevin Dynamics in Large N matrix models - I'll talk about the unitary matrix models and an analytic solution of a new matrix model and compare it with Complex Langevin Simulations.
2. Higher Point OTOCs and the bound on Chaos - I'll briefly review the Maldacena-Stanford-Shenker "A bound on chaos" paper and present the formal derivation for higher point OTOCs for a generic QFT.
3. Epsilon-expansion in the Gross-Neveu model from CFT - I'll present a new technique to compute the anomalous dimensions of a class of operators to the leading order without using usual perturbative techniques.