ICTS | INTERNATIONAL CENTRE for THEORETICAL SCIENCES

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS String Seminar (HYBRID)

Title : Lessons from the quotient structure of spacetime: Flat space cosmology edition

Speaker : Victoria Martin (University of Iceland)

Date : Wednesday, 21st June 2023

Time : 03:00 PM (IST)

Abstract : In this talk we consider spacetimes that are quotients (such as the BTZ black hole, warped AdS black holes, flat space cosmologies, and many more). We ask the question: what can we learn from the quotient structure of spacetime alone? The answer: from the quotient group we can construct a Selberg-like zeta function (a close cousin of the Riemann zeta function) that produces the one-loop partition function for a probe scalar field and the corresponding quasinormal modes. We focus in particular on our forthcoming work studying this mechanism in flat space cosmologies (also known as symmetric boost orbifolds). Generalizations to higher spin fields beyond the scalar field example are straightforward.

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
Meeting ID: 880 9276 6911

Passcode: 232322