Fakultät für Physik
Mathematische Physik
1090 Wien, Boltzmanngasse 5

universität wien

E I N L A D U N G

im Rahmen des Seminars für Mathematische Physik

(Joint TU/UV Theory Seminar)

zum Vortrag von

Nava GADDAM

(ICTS Bangalore)

über

"Holography of Information in a Ball of Finite Radius"

Abstract:
The principle of Holography of Information states that all information available in the bulk of spacetime is also available near its boundary at spatial infinity. However, physical observers never have access to spatial infinity. Therefore, we ask the question: "Is information contained in a ball of finite radius also holographic in nature?". Phrased differently, we ask whether correlation functions on the boundary of the ball capture all the information of all correlators in the bulk of the ball.

In this talk, I will answer this question in the affirmative, within the confines of linearised quantum gravity coupled minimally to a free Klein-Gordon field, for generic low-energy states in asymptotically flat space. Interestingly, unlike at infinity, massive and massless fields can be captured within our framework. At the end of the talk, I will discuss several important extensions of this program to AdS, dS, and black hole spacetimes.

Zeit: Dienstag, 11.6.2024, 14:00h

Ort: Erwin-Schrödinger-Hörsaal, Fakultät für Physik, Boltzmanngasse 5, 5. Stock

Zoom-Link:
https://tuwien.zoom.us/j/4207073557?pwd=YVhUSVpZRnRMR3p0aXdsb1BmaXFwUT09&omn=64465475582

gez.: S. Fredenhagen, D. Grumiller, T. Tran, A. Fiorucci