

Seminarium Szkoły Doktorskiej NCBJ

Thursday, 4 April, 9:15

room 207, Pasteura 7

<https://www.gotomeet.me/NCBJmeetings/phd-seminar>

<https://events.ncbj.gov.pl/event/300/>

Speaker:

Ludovic Varrin (Szkoła Doktorska NCBJ)

Title:

(1+1) dimensional Quantum Gravity from the Corner Proposal

Abstract:

The concept of symmetries is crucial in our comprehension of modern theoretical physics. The Corner Proposal introduces a novel framework where symmetries are reinstated as foundational principles in our understanding of gravity. This aims to describe gravity using a language that is more adapted to quantization. In this presentation, I will provide an overview of the essential tools required to grasp the conceptual framework of the proposal, accompanied by simple examples for illustration. Subsequently, I will present elements of our recent research applying the proposal to the case of 1+1 dimensional gravity. Finally, I will demonstrate the framework's utility by calculating the entanglement entropy between two spatial regions—a significant challenge in quantum gravity. The result is the 1+1 dimensional equivalent of the well-established Bekenstein-Hawking area law governing the entropy of gravitational systems.