

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

*Thursday, 4 April 2024 09:15 (60)*

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.

**Presenter(s)** : VARRIN, Ludovic