



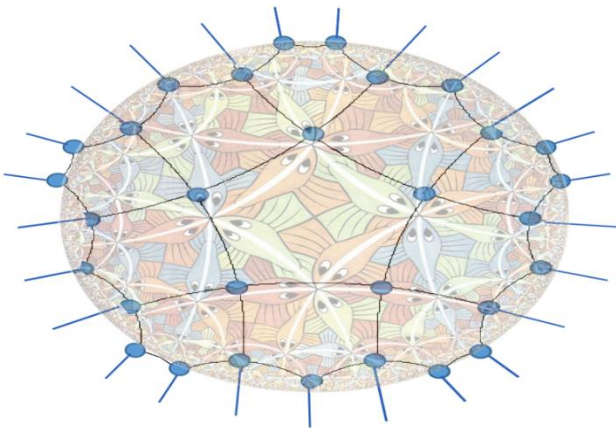
Sommersemester 2022

Montag, 23.05.2022, 12 Uhr c.t. im HNB und
hybrid als [Zoom meeting](#) (Meeting-ID: 632 5520 9938, Passwort:
526977)

From Quantum Information to Gravity, and Back

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Gravity is far from the typical playground of the working quantum information scientist. Yet over the past decade a striking picture has begun to form - suggesting that the way space-time emerges in quantum gravity might (through the so-called holographic duality) be intimately connected to the way quantum bits are entangled in a quantum

computer. I will give a gentle overview of some activities at this frontier of research and discuss how insights and techniques from quantum information have had an impact on quantum gravity research, and vice versa, leading to a vibrant exchange of ideas. We will see how tensor networks can model space-time, how to teleport a quantum bit through a simulated wormhole, and what error correction has to do with it all.

Einführung: Prof. Dr. Ilya Eremin

Die Fakultät lädt alle Interessierten herzlich ein.