Title: Tensor Network and Space-time Geometry - Charles (ChunJun) Cao

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Abstract: In this talk, I will discuss how to assign geometries, such as metric tensors, to certain tensor networks using quantum entanglement and tensor Radon transform. In addition, we show that behaviour similar to linearized gravity can naturally emerge in said tensor networks, provided a modified version of Jacobson's entanglement equilibrium is satisfied. Since the aforementioned properties can be reached without relying on AdS/CFT, the approach also shows promise towards constructing tensor network models for cosmological spacetimes.

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## TENSOR NETWORK AND SPACETIME GEOMETRY

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