

# The Time Machine Factory [unspeakable, speakable] on Time Travel -TM2019



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## Causal set theory and quantum fields

*Wednesday, 9 October 2019 15:40 (20 minutes)*

In this talk I will discuss the properties of quantum fields in causal set theory, a theory of quantum gravity in which nonlocality emerges as a consequence of discreteness and local Lorentz invariance. In particular I will present some recent results regarding the computation of entanglement entropy in this context and consider some comparisons with other models of quantum spacetime with particular attention to the fate of Lorentz symmetries.

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