



SPACETIME IS AS SPACETIME DOES (BASED ON JOINT WORK WITH VINCENT LAM)

TALK BY
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Theories of quantum gravity generically presuppose or predict that the reality underlying relativistic spacetimes they are describing is significantly non-spatiotemporal. On pain of empirical incoherence, approaches to quantum gravity must establish how relativistic spacetime emerges from their non-spatiotemporal structures. I will argue that in order to secure this emergence, it is sufficient to establish that only those features of relativistic spacetimes functionally relevant in producing empirical evidence must be recovered. In order to complete this task, an account must be given of how the more fundamental structures instantiate these functional roles. I will illustrate the general idea in the context of causal set theory and loop quantum gravity, two prominent approaches to quantum gravity.

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