

Time and causation within a realist completion of quantum mechanics

Wednesday, 19 June 2019 14:00 (40 minutes)

I report on a programme of research aimed at constructing a realist completion of quantum mechanics. These are based on an energetic causal set ontology within which time (in the sense of causation), energy and momentum are assumed real and fundamental, while spacetime and its dynamics as well as quantum mechanics emerge in appropriate limits. These comprise papers on energetic causal sets, with Marina Cortes, as well as papers on the real ensemble formulation of quantum mechanics and, most recently, the causal theory of views. The relevant papers are summarized and linked here: <https://leesmolin.com/einsteins-unfinished-revolution/related-scientific-papers/>

Presenter: SMOLIN, Lee (Perimeter Institute)

Session Classification: Time, Energy and Work