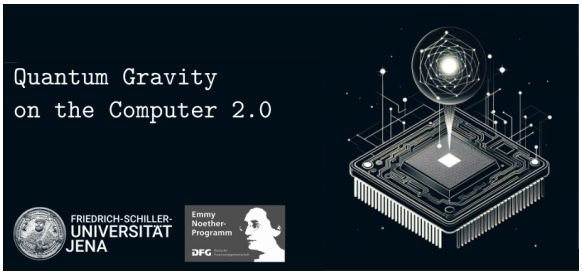

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Relational Lorentzian Asymptotically Safe Quantum Gravity

Monday 9 September 2024 11:15 (1 hour)

The asymptotic safety (ASQG) and canonical (CQG) approach to quantum gravity have been developed to a large extent independent of each other. In this work we take first steps to bringing them into closer contact by working with the Lorentzian version of the functional renormalisation group of ASQG which we relate to the reduced phase space formulation of CQG.
Particular care is needed due to the necessary switch to Lorentzian signature which has strong impact on the convergence of "heat"kernel time integrals in the heat kernel expansion of the trace involved in the Wetterich equation and which requires different cutoff functions than in the Euclidean version.

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