Quantum Gravity on the Computer 2.0



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Computing Lorentzian scattering amplitudes in Asymptotic Safety

Monday 9 September 2024 10:15 (1 hour)

Scattering amplitudes in flat-space QFT are useful objects, as they connect first-principle computations to high-energy observables like cross sections, and thus do not suffer from gauge or regularisation ambiguities. For Asymptotic Safety, they can play a key role to investigate open questions about unitarity and causality.

In this talk, I will outline the computational challenges (and partial solutions) that one encounters on the path starting from the formulation of the Wetterich equation in Euclidean signature and ending at Lorentzian gravitational scattering amplitudes in Asymptotic Safety.

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