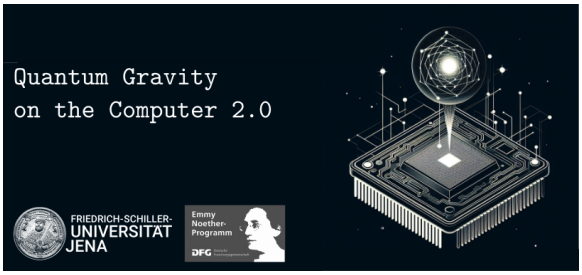

Contribution ID: **22** Type: **not specified**

Improved algorithm for dynamical triangulations and simulations of finer lattices

Thursday 12 September 2024 11:00 (1 hour)

I will first briefly introduce Euclidean dynamical triangulations with a non-trivial measure term and motivate the need for an algorithm that is more efficient than a standard Metropolis algorithm. I will then introduce the concept of rejection-free algorithms, and discuss generalizations that are necessary to employ those algorithms for EDT. I will test the generalized algorithm on the 2d Ising model, and against results for EDT obtained with standard Metropolis. If time permits, I will comment on results obtained with the new algorithm, where we find that geometries approximate semiclassical Euclidean de Sitter space better for finer lattice spacings.

Presenter: SCHIFFER, Marc (Radboud University Nijmegen)