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# Tensor Networks for Fine-Graining Lattice Gauge Theory, and Also Path Integral Geometry

*Thursday, 13 September 2018 11:30 (25 minutes)*

There are many tensor network approaches to studying quantum field theories. In this talk we summarize two: (1) An approach to fine-graining (UV-completing) lattice Yang-Mills theory in the Hamiltonian formalism. Central to this approach are local maps that perform curvature interpolation in the gauge-group, which together form the building blocks of a gauge-invariant MERA tensor network. (2) A way of assigning geometric content to pieces of certain well-known tensor networks for critical systems, via their mimicry of pieces of euclidean time path integral (of a conformal field theory).

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