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Study of a lattice 2-group gauge model

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Gauge theories admit a generalisation in which the gauge group is replaced by a finer algebraic structure, known as a 2-group. The first model of this type is a Topological Quantum Field Theory introduced by Yetter. I would like to discuss a common generalisation of both the Yetter's model and Yang-Mills theory. I will focus on the lattice formulation of such model for finite 2-groups. After describing the model I will mention its integrable limits and state some basic expectations about its dynamics.

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