Abstract Submitted
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Spin Liquid in the Triangular Lattice Heisenberg Model[1] IAN MCCULLOCH, SEYED SAADATMAND, University of Queensland — We report the results of a large-scale numerical study of the spin-1/2 Heisenberg model on the triangular lattice, with nearest- and next-nearest neighbor interactions. Using SU(2)-invariant iDMRG for infinite cylinders, we focus on the YC12 structure (with a circumference of 12 sites), and obtain 4 candidate groundstates, corresponding to even/odd spinon sectors, each with linear and projective representations of the cylinder geometry. The momentum-resolved entanglement spectrum reveals the structure of the low-lying spinon excitations. Contrary to some recent works, we find no evidence for chiral symmetry breaking.

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Ian McCulloch
University of Queensland

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