

Abstract Submitted
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Ordered States on the Kagome Antiferromagnetic Heisenberg Model SIMENG YAN, STEVEN WHITE, University of California, Irvine — We numerically study the spin 1/2 Kagome antiferromagnetic Heisenberg Model with DMRG techniques. Recently, Singh and Huse proposed a dimerized ground state with a 36 site unit cell. To test this proposal, we have simulated the system on clusters which favor this order. If the order was not found, this would disprove the proposal. However, the results do show the proposed order. The strength of the dimerization on the pinwheels is surprisingly strong, with $\langle S \cdot S \rangle$ taking values of -0.7J on the strong bonds and -0.1J on the weak. We also have studied the system on clusters with a cylindrical geometry to test for the presence of the order.

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