

MAR09-2008-007896

Abstract for an Invited Paper  
for the MAR09 Meeting of  
the American Physical Society

**Lar Onsager Prize Talk: An Exactly solvable model for Strontium Copper Borate: Mott Hubbard  
Physics on an Archimedean Lattices<sup>1</sup>**  
SRIRAM SHASTRY, University of California Santa Cruz

An exactly solvable model of spin half particles on a certain 2-dimensional frustrated lattice has been recently realized in the compound  $SrCu_2(BO_3)_2$ , and other similar systems have been found more recently. These systems appear to be ideal testing grounds for contemporary theoretical ideas on the role of correlations and frustration in Mott Hubbard systems. In this talk I will summarize the work on these systems emphasizing their role in testing key concepts.

<sup>1</sup>The speaker acknowledges support from NSF-DMR-0706128 and DOE-BES DE-FG02-06ER46319.