

Condensed Matter Seminar

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"A Model for Many Seasons: Magnetism and Superconductivity in 2-d"

The exactly solved model invented by Sutherland and the speaker in 1981 has very recently lead to a class of two dimensional systems $\text{SrCu}_2(\text{BO}_3)_2$, Tm B_4 that are currently exciting. In this talk I will summarize the recent experimental systems that have been found, and also some key ideas from quantum antiferromagnetism and Mott Hubbard physics that are tested. The underlying lattice has apparently an ancient history dating back to the concerns of Archimedes, and according to many workers, the lattice and the model have an intriguing future as well, providing a testing ground for current ideas on unusual quantum phenomena.

Thursday, May 8, 2008
4:10PM Room 416 PHY/GEO