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11:00

AER 19 Seminar Room 4.14

**Magnetic systems with frustration:
Spin ices, monopoles, etc.**

by

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During recent years the interest to frustrated magnets has grown considerably. Such systems reveal very peculiar properties which distinguish them from standard paramagnets, magnetically ordered regular systems (like ferro-, ferri-, and antiferromagnets), or spin glasses. In particular great amount of attention has been devoted to the so-called spin ices, in which magnetic frustration together with the large value of the single-ion magnetic anisotropy of a special kind, yield peculiar behavior. One of the most exciting features of spin ices is related to low-energy emergent excitations, which, from many viewpoints can be considered as analogies of Dirac's monopoles. In the report the main achievements of theory and experiment in this field of physics will be reviewed.