

# **The Ising model on some classes of matroids**

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Classically, the Ising model in statistical physics is defined on a graph. But through the random cluster formulation we can make sense of the Ising partition function in the wider context of an arbitrary matroid. I expect most of the talk will be spent setting the scene. But eventually I'll come round to discussing the computational complexity of evaluating the partition function on various classes of matroids (graphic, regular and binary). I'm not a physicist nor a card-carrying matroid theorist, so the talk should be pretty accessible.

This is joint work with Leslie Goldberg (Liverpool).