

# **Generalising Kasteleyns dimer representation of the classical Ising problem**

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abstract:

Inspiring about 800 papers a year, even today, the Ising model is one of the most studied models of statistical mechanics. While there is still no analytic solution for three dimensional systems, it already has a number of solutions in two dimensions. Among them is a method introduced by Pieter Kasteleyn, involving the closed packing of dimers on a lattice surface. In my talk, I will present his method and develop a generalisation, which I worked on in my masters thesis.