

## **Statistics of phase boundaries: renormalisation and sharp asymptotics**

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Statistical properties of equilibrium systems under phase coexistence are influenced by the presence of phase boundaries. In two dimensions the latter are often well approximated by one-dimensional interfaces, whose distribution around the equilibrium Wulff shapes can be described to a high precision in the thermodynamic limit.

In this talk we present a general approach to studying such interfaces, which is based upon a finite-size renormalisation and suitable cluster expansions.

We illustrate the technique by deriving the sharp asymptotics for the distribution of magnetisation in the 2D low-temperature Ising model. We further present an example of an interface model, in which the analysis persists in the whole subcritical region.