

Surface tension for the Widom-Rowlinson model in the continuum

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Abstract The Widom-Rowlinson model of interacting particles in the continuum is one of a few cases where a phase transition on the ‘liquid/gas’ coexistence line is rigorously understood.

I will discuss how ‘liquid’ surface layer fluctuations lead to a derivation of low temperature asymptotics of the surface tension with an entropic term featuring a fractional power of the temperature.

The analysis relies on a careful examination of the surface tension limit and its expression in terms of the spectral radius of an appropriately chosen transfer operator.

The topic is a vital ingredient in a series of papers under preparation, jointly with *Frank den Hollander*, *Sabine Jansen*, and *Elena Pulvirenti*, devoted to metastability for the Widom-Rowlinson model.