Numerical solution of the one-dimensional saddle point equation of the Ginzburg–Landau

Hamiltonian with random temperature

Corrigendum

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There is an error in the definition of the random temperature distribution (3). It should be given by

$$p(\{\tilde{t}_i\}) = \frac{1}{\Delta\sqrt{2\pi}} exp(-\frac{\tilde{t}_i^2}{2\Delta^2}). \tag{3}$$

It is then consistent with the numerical calculation in section 4. In equations (3), (4), (8), (31), (58), and (59) and the discussion on page 3373, Δ should be replaced by $\sqrt{2}\Delta$ and Δ^2 should be replaced by $2\Delta^2$. The disorder strength of the site-diluted spin model given by equation (59) should be $\Delta = \sqrt{p(1-p)}$. This error only causes the inconsistency between equation (3) and the numerical calculation in section 4, and does not effect the general conclusions in this paper.

In addition there is a typing error in figures 7, 11 and 12 where the title of the vertical axis should be $\xi \rightarrow \xi_\phi$.