

ERRATUM: Ising Model Susceptibility

C. Domb and M. F. Sykes

Citation: Journal of Mathematical Physics 3, 586 (1962); doi: 10.1063/1.1724260

View online: http://dx.doi.org/10.1063/1.1724260

View Table of Contents: http://scitation.aip.org/content/aip/journal/jmp/3/3?ver=pdfcov

Published by the AIP Publishing

Articles you may be interested in

On the diagonal susceptibility of the two-dimensional Ising model

J. Math. Phys. 54, 123302 (2013); 10.1063/1.4836779

Transverse susceptibility of the Ising model

J. Appl. Phys. 57, 3329 (1985); 10.1063/1.335085

On the Exact Frequency-Dependent Susceptibility of the Two-Dimensional Ising Model

J. Appl. Phys. 39, 1351 (1968); 10.1063/1.1656297

Perpendicular Susceptibility of the Ising Model

J. Math. Phys. 4, 124 (1963); 10.1063/1.1703878

ERRATUM: Ising Model and Excluded Volume Problem

J. Math. Phys. 3, 586 (1962); 10.1063/1.1724259



different way later on. For not too thin strips, the total transition time θ is much larger than the time required for the transition in the half-space to reach the same distance. Thus, it is dangerous to try to estimate θ by extrapolating the analytical solution valid for small times and small distances as far as z = w. If with a given external field one increases the width of the strip, keeping all other parameters constant, the transition time increases very rapidly when the width reaches a certain critical range (Fig. 8). With a stronger external field, the same phenomenon is observed but for much wider strips (Fig. 9).

All interface curves calculated numerically for the strip seem to intersect the center line x=a of the strip under a right angle. This seems to confirm the prediction, made under Sec. II.2., that $\dot{\xi}(t) \to \infty$ as $\xi \to a$.

Notice that this prediction was based upon relation (29), which in turn depends on assumption (28). One could think that, in using (29b) to determine l_n , according to Sec. III.3., one forces the numerical interface curves to become flat in the last step only. This is not the case; the numerical curves begin to flatten out well before reaching the grid-point (x_{n-1}, t_{n-1}) , that is while the solution is still calculated according to the general procedure described in Sec. III.2.

ACKNOWLEDGMENTS

The author would like to express his gratitude to Hirsh Cohen for his important contributions to the formulation and solution of the problem considered in this paper, as well as to Willard L. Miranker and Farouk Odeh for their valuable suggestions.

ERRATUM: Ising Model and Excluded Volume Problem

M. F. Sykes

Kings College, University of London, London, England [J. Math. Phys. 2 52, (1961)]

Page 61. In the expansion for C(x) for the simple cubic lattice the last term should read $+ 41 934 150x^{11}$.

ERRATUM: Ising Model Susceptibility

C. Domb and M. F. Sykes King's College, University of London, London, England [J. Math. Phys. 2, 63 (1961)]

Page 67. In the expansion for the reduced susceptibility of the simple cubic lattice the last two terms should read $+ 8306862w^{10} + 38975286w^{11}$.