

Antiferromagnetic triangular Ising model: an exact calculation of $P(h)$

This article has been downloaded from IOPscience. Please scroll down to see the full text article.

1983 J. Phys. A: Math. Gen. 16 3691

(<http://iopscience.iop.org/0305-4470/16/15/534>)

View [the table of contents for this issue](#), or go to the [journal homepage](#) for more

Download details:

IP Address: 129.252.86.83

The article was downloaded on 31/05/2010 at 06:33

Please note that [terms and conditions apply](#).

Corrigendum

Antiferromagnetic triangular Ising model: an exact calculation of $P(h)$

Choy T C and Sherrington D 1983 *J. Phys. A: Math. Gen.* **15** L265-8

S_{13} should be $(\frac{1}{6} + 2\sqrt{3}/3\pi)$. A missing factor of π in formula (12), p 373 of Gradshteyn and Ryzhik's (1980) *Tables of Integrals, Series and Products* (New York: Academic) used for evaluating $I_4(h)$ and $I_6(h)$ has resulted in numerical errors in the published numbers. The ground state $P(h)$ together with the ferromagnetic case at $T = T_c$ is shown below, normalised for $\sum_{h=-6}^6 P(h) = 1$.

h	Ground state $J < 0$ Antiferromagnetic	$P(h)$	
		$T = T_c$ Ferromagnetic $J > 0$	$T = \infty$
0	0.290 028 35	0.059 224 94	0.312 500
2	0.226 635 44	0.072 445 86	0.234 375
4	0.111 686 52	0.122 099 28	0.093 750
6	0.016 663 86	0.275 842 39	0.015 625

The minimum at $P(0)$ in the ferromagnetic case is also found in a similar calculation for the square and honeycomb net (M Thorpe, private communications). Details will be published elsewhere.