

On the number of spiral self-avoiding walks

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1984 J. Phys. A: Math. Gen. 17 3614

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Szekeres has also calculated the correction term in equation (6) of GW which is

$$c = -\frac{1}{4\sqrt{3}} \left(\frac{\pi}{6\sqrt{2}} + \frac{6\sqrt{2}}{\pi} \right),$$

and from this result we have calculated the correction term to equation (9), which yields, for the coefficient of $1/\sqrt{n}$ in (9)

$$\beta = -\frac{35\sqrt{3}}{16\pi} - \frac{7\pi}{12\sqrt{3}} = -2.264\ 08\dots$$

We also wish to point out a simple connection between 'live spirals' L_n and the class C_n , which is $c_n = l_{n+1} - l_n$.

Joyce (1984) has recently obtained the complete asymptotic expansion for s_n .

References

Joyce G S 1984 *J. Phys. A: Math. Gen.* **17** L463

Guttmann A J and Wormald N C 1984 *J. Phys. A: Math. Gen.* **17** L271

Corrigendum

On the number of spiral self-avoiding walks

Guttmann A J and Wormald N C 1984 *J. Phys. A: Math. Gen.* **17** L271–4

Line 3 of the abstract should read

$$s_n = \exp[2\pi(n/3)^{1/2}]c/n^{7/4}[1 + O(1/\sqrt{n})].$$

Equation (3) should read

$$s_n = \sum_{k=0}^{n-1} i_k c_{n-k} - \sum_{k=1}^{n-1} i_k i_{n-k}, \quad \text{with } i_0 = 1, c_0 = 0, c_1 = 1.$$

Below equation (5), 'is defined in (1)' should be replaced by 'satisfies (1)'.

Equation (6) should read

$$c_n = (1/4\sqrt{3} \cdot n) \exp[\pi(2n/3)^{1/2}][1 + c/\sqrt{n} + O(1/n)].$$

Equation (7) should read

$$i_n = (\pi/12\sqrt{2} \cdot n^{3/2}) \exp[\pi(2n/3)^{1/2}][1 + O(1/\sqrt{n})].$$