

Erratum: Diffusion in correlated random potentials, with applications to DNA [Phys. Rev. E **69**, 061903 (2004)]

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The hopping probabilities defined in Eq. (6) should be modified to include factors of $1/2$ in the exponent:

$$p_i \propto e^{-\beta(U_{i+1}-U_i)/2}, \quad q_i \propto e^{-\beta(U_{i-1}-U_i)/2}. \quad (6)$$

In this form, the system exhibits detailed balance and equilibrates at the temperature $T=1/\beta$ for asymptotic times. The definition assumes the existence of energetic barriers $\{E_{i,i\pm 1}\}$ between each pair of neighboring sites; the barriers' energies are assumed to be distributed independently of the on-site energies $\{U_i\}$. The full expression for hopping rates is [1,2]

$$w_{i,i+1} = \nu e^{-\beta E_{i,i+1}} e^{-\beta(U_i-U_{i+1})/2},$$

$$w_{i+1,i} = \nu e^{-\beta E_{i,i+1}} e^{-\beta(U_{i+1}-U_i)/2},$$

where ν is the attempt frequency.

Redefinition (6) of hopping probabilities influences the results and the conclusions of the paper in the following way.

- (1) Factor β should be replaced by $\beta/2$ throughout the paper.
- (2) Since the temperature enters into the final formulas only through the combination $\beta\sigma$, the results and the implications remain valid for values of σ twice as large as were discussed in the paper.

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[2] P. Le Doussal, C. Monthus, and D. S. Fisher, *Phys. Rev. E* **59**, 4795 (1999).