

Erratum: Persistence of Spin Coherence in a Crystalline Environment [Phys. Rev. Lett. 133, 056901 (2024)]

Gerald Curran III, Zachary Rex, Casper Xallan Wilson, Luke J. Weaver, and Ivan Biaggio[✉]



(Received 30 September 2025; published 27 October 2025)

DOI: [10.1103/6vzz-8zys](https://doi.org/10.1103/6vzz-8zys)

A factor of 2 error was made when stating the variance of the stochastic phase shift that leads to transport-induced dephasing, which requires replacing the text leading to Eq. (3), Eq. (3) itself, and Eq. (5) with versions where the factor of 2 error is corrected. The correct versions are given below.

[...] It follows that a random walk of duration t averages $N = 2t/\tau$ steps, with half the time spent in either an AA or BB configuration. The variance of the term $(\Delta t^{AA} - \Delta t^{BB})$ in (2) is then $\tau t/2$, and the variance of $\Delta\varphi(t)$ becomes

$$\langle \Delta\varphi(t)^2 \rangle = \frac{1}{8}(\omega^{AA} - \omega^{BB})^2 \tau t, \quad (3)$$

[...]

$$k_{TID} = \frac{\tau}{16}(\omega^{AA} - \omega^{BB})^2. \quad (5)$$

In addition to these two equations, the rule of thumb mentioned in the subsequent paragraph must be corrected to $\tau_{1/2} = 0.286f/\Delta f^2 \approx 2f/(7\Delta f^2)$.

The above corrections of a factor of 2 typo imply a doubling of the hopping time values that were originally stated in the abstract and in the text, but this has no impact on the rest of the paper, our main results, or the final conclusions.