

**Erratum: Practical noise mitigation for quantum annealing via dynamical decoupling:
Toward industry-relevant optimization using trapped ions [Phys. Rev. A **113**, 012621 (2026)]**

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Some prefactors have been misquoted in the characteristic energy scale J and the strength of the spin-spin coupling. As a result, the required timescales are smaller than what is quoted in the paper. Specifically, the correct relationship between energy scale J and spin-spin coupling is $J = \max_{ij} |J_{ij}|/2$ (i.e., including a factor of $1/2$). The quoted values of $\max_{ij} |J_{ij}|$ in Sec. IV C should include a prefactor of 2π , i.e., $\max_{ij} |J_{ij}| \approx 2\pi \times 26.5$ Hz and $\approx 2\pi \times 1650.6$ Hz for $\partial_z B = 19$ T m⁻¹, respectively, $\partial_z B = 150$ T m⁻¹. Similarly, the accessible Rabi frequency of a driving field in Sec. VI C (p. 11) should read $2\pi \times 100$ kHz, whereas other values stated in Hertz, where the prefactor 2π is not explicitly given, such as for the noise amplitudes, should simply be read as angular frequencies in rad/s. Accounting for these corrections, the characteristic energy scale $J = 26$ rad/s used in the numerical calculations is consistent with a magnetic field gradient of $\partial_z B \approx 10.6$ T m⁻¹.

These changes do not modify any of the conclusions of the paper. Since all simulations were performed with dimensionless units of J , these corrections leave all numerical results unchanged. They do improve the experimental outlook: the experimentally demonstrated gradient of 19 T m⁻¹ provides a roughly three times larger energy scale than originally stated and the maximal feasible dynamical decoupling pulse rate is on the order of 100 rather than 15 pulses per millisecond, making the protocol more favorable than reported.