

Erratum: Continued-fraction analysis of dressed systems: Application to periodically driven optical lattices [Phys. Rev. A **87, 023424 (2013)]**Thomas Zanon-Willette, Emeric de Clercq, and Ennio Arimondo
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The purpose of this addendum is to clarify some of the information presented in the original paper. In Sec. II of the original paper, in order to apply the continued fraction and approximated S solutions to the atomic tunneling in optical lattices, we mentioned the equivalence between the atomic tunneling Hamiltonian and the magnetic resonance Hamiltonian. Therefore the number of optical lattice sites is equal to the number of Zeeman sublevels for the spin magnetic resonance.

We clarify that the equivalence applies only to atomic optical lattices with two or three sites described by spin-1/2 or spin-1 Hamiltonians, respectively, because in those cases the tunneling element is constant over the lattice sites. For a larger number of Zeeman sublevels, the Rabi coupling between them varies with the sublevel, while the optical lattice tunneling does not depend on the site number, as pointed out by Karczmarek *et al.* [1]. Optical lattices featuring tunneling couplings depending on the site index as the square root were recently considered in [2].

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[1] J. Karczmarek, M. Stott, and M. Ivanov, *Phys. Rev. A* **60**, R4225 (1999).

[2] S. Longhi and A. Szameit, *J. Phys.: Condens. Matter* **25**, 035603 (2013).