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Author Correction: Non-Markovianity of qubit evolution under the action of spin environment

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Correction to: *Scientific Reports* <https://doi.org/10.1038/s41598-019-39140-2>, published online 27 February 2019

This Article contains errors in the equation and text under subheading ‘Motivation behind the model’.

“When we compare Eq. (9) with the usual Hamiltonian of a spin bath model^{34,35,36} in the interaction picture, given by,

$$H_{spin-bath} = \hbar\alpha \sum_{n=1}^N (\sigma_x^{(s)} \sigma_x^{(n)} + \sigma_y^{(s)} \sigma_y^{(n)} + \sigma_z^{(s)} \sigma_z^{(n)})$$

we find that the only difference comes from the $|0\rangle \langle 0|$ factors arising in Eq. (9), which are replaced by $\mathbb{1}$ for the spin bath Hamiltonian.”

should read:

“When we compare Eq. (9) with the usual Hamiltonian of a spin bath model^{34,35} in the interaction picture, given by,

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we find that the only difference comes from the $|0\rangle \langle 0|$ factors arising in Eq. (9), which are replaced by $\mathbb{1}$ for the spin bath Hamiltonian.”

Additionally, the Acknowledgements section in this Article is incomplete.

“The authors would like to thank R. Lo Franco, C. Gonzalez-Gutierrez, F. Plastina and T.J.G. Apollaro for providing useful inputs on the manuscript. SC, AM, and SG gratefully acknowledge discussions with Samyadev Bhattacharya and Chiranjib Mukhopadhyay.”

should read:

“The authors would like to thank R. Lo Franco, C. Gonzalez-Gutierrez, F. Plastina and T.J.G. Apollaro for providing useful inputs on the manuscript. SC, AM, and SG gratefully acknowledge discussions with Samyadev Bhattacharya and Chiranjib Mukhopadhyay.”

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