

**Retraction: Exotic behavior of parity in the superradiant phase of the quantum Rabi model
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We have identified a numerical error affecting the accuracy of calculations of the energy difference and parity behavior in the quantum Rabi model, which invalidates the discussion and conclusions presented in the original publication.

In the original study, numerical calculations were performed in the full Hilbert space using *Mathematica* with machine precision (approximately 15–16 digits). However, increasing the precision up to 34 digits, both the energy fluctuations and the irregular parity behavior found in machine precision disappear completely. This result indicates that the exotic parity behavior reported in our paper stems solely from insufficient numerical precision, which was overlooked in the original analysis.

In light of these findings, the main conclusion of the paper is invalid due to numerical inaccuracy.

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