

Publications in peer reviewed journals

- 15. Black-hole Powered Quantum Coherent Amplifier, **A. Misra***, P. Chattopadhyay, A. Svidzinsky, Marlan O. Scully, G. Kurizki, npj Quantum Information (Nature) **10**, 34 (2024)
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- 14. Nonlinear Coherent Heat Machines, T. Opatrny, Š. Bräuer, A.G. Kofman, **A. Misra***, N. Meher, O. Firstenberg, E. Poem, G. Kurizki, **Science Advances** **9**(1), eadf1070 (2023)
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- 13. Work Extraction from Single-mode Thermal Noise by Measurements: How Important is Information?, **A. Misra***, T. Opatrny, G. Kurizki, **Phys. Rev. E** **106**, 054131 (2022)
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- 12. Work Generation from Thermal Noise by Quantum Phase-Sensitive Observation, T. Opatrny, **A. Misra***, G. Kurizki, **Phys. Rev. Lett.**, **127** (4), 040602 (2021).
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- 11. Minimal Quantum Heat Manager Boosted by Bath Spectral Filtering, M. T. Naseem, **A. Misra**, O. E. Müstecaplıoğlu, G. Kurizki, **Phys. Rev. Res.**, **2** (3), 033285 (2020).
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- 10. Two-body Quantum Absorption Refrigerators with Optomechanical-like Interactions, M. T. Naseem, **A. Misra**, O. E. Müstecaplıoğlu, **Quantum Science and Technology**, **5**(3), 035006 (2020).
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- 8. Quantum Speed Limit Constraints on a Nanoscale Autonomous Refrigerator, C. Mukhopadhyay, **A. Misra**, S. Bhattacharya, A. K. Pati, **Phys. Rev. E** **97**, 062116 (2018).
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- 7. Dynamics and Thermodynamics of a Central Spin Immersed in a Spin Bath, C. Mukhopadhyay, S. Bhattacharya, **A. Misra**, A.K. Pati, **Phys. Rev. A**, **96**, 052125 (2017).
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- 6. Exact Master Equation for a Spin Interacting with a Spin Bath: Non-Markovianity and Negative Entropy Production Rate, S. Bhattacharya, **A. Misra***, C. Mukhopadhyay, A.K. Pati, **Phys. Rev. A** **95**, 012122 (2017).
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- 5. Complementarity between Tripartite Quantum Correlation and Bipartite Bell Inequality Violation in Three Qubit States, P. Pandya, **A. Misra***, I. Chakrabarty, **Phys. Rev. A** **94**, 052126 (2016).
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- 4. Generalized Geometric Measure of Entanglement for Multiparty Mixed States, T. Das, S.S. Roy, S. Bagchi, **A. Misra**, A. Sen De, U. Sen, **Phys. Rev. A** **94**, 022336 (2016).
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- 3. Energy Cost of Creating Quantum Coherence, **A. Misra***, U. Singh, S. Bhattacharya, A.K. Pati, **Phys. Rev. A** **93**, 052335 (2016).
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- 2. Quantum Rényi Relative Entropies Affirm Universality of Thermodynamics, **A. Misra***, U. Singh, M. N. Bera, A.K. Rajagopal, **Phys. Rev. E** **92**, 042161 (2015).
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- 1. Quantum Correlation with Sandwiched Relative Entropies: Advantageous as Order Parameter in Quantum Phase Transitions, **A. Misra**, A. Biswas, A.K. Pati, A. Sen De, U. Sen, **Phys. Rev. E** **91**, 052125 (2015).
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- 7. Towards Nonlinear Quantum Thermodynamics, G. Kurizki, N. Meher, **A. Misra**, D.B.R. Dasari, T. Opatrny Submitted to **EPJ-ST**
- 6. Sensing Multiatom Networks in Cavities via Photon-induced Excitation Resonance, P. Chattopadhyay, **A. Misra**, S Sur, D Petrosyan, G Kurizki, (PC, SS and AM contributed equally), arXiv:2411.09465 (2024); Submitted to **Quantum Science and Technology**
- 5. Many-body Quantum Thermal Machines in a Lieb-Kagome Hubbard Model, S. Sur, P. Chattopadhyay, M. Karmakar, **A. Misra***, arXiv:2404.19140 (2024); Submitted to **Phys. Rev. B**.
- 4. Reversible Work Extraction from a Single-mode Hot Beam, **A. Misra***, T. Opatrny, G. Kurizki, To be resubmitted to **Entropy** after revision

- 3. Thermodynamics of Computation and Information Theory: Recent Progress, P. Chattopadhyay, **A. Misra**, G. Paul, (PC and AM contributed equally), To be resubmitted to **Reports on Progress in Physics** after revision

- 2. Quantum Nonlocality does not Demand All-out Randomness in Measurement Choice, M. Banik, S. Kunkri, **A. Misra**, S.S. Bhattacharya, A. Roy, A. Mukherjee, S. Ghosh, G. Kar, *arXiv:1707.05339* (2017); Under revision
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- 1. Erasing Quantum Coherence: An Operational Approach, U. Singh, M. N. Bera, **A. Misra**, A.K. Pati, *arXiv:1506.08186* (2015); To be submitted to **Quantum Science and Technology**.
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