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List of Publications

2023

18. Shigeru Furuichi, Hamid Reza Moradi, Supriyo Dutta. Convex inequalities and their applications to relative operator entropies. *Journal of Convex Analysis* (Accepted). ArXiv: 2202.04299.
17. Supriyo Dutta, Subhashish Banerjee, Monika Rani. Quantum Hypergraph States in Noisy Quantum Channels. *Physica Scripta* (Accepted). ArXiv: 2110.08829.
16. Supriyo Dutta. Quantum routing in planar graph using perfect state transfer. *Quantum Information Processing* (Accepted). ArXiv:2302.10074.
15. Supriyo Dutta, Partha Guha. A System of Billiard and Its Application to Information-Theoretic Entropy. *Advances in Theoretical and Mathematical Physics* (Accepted). ArXiv: 2004.03444.
14. Supriyo Dutta, Shigeru Furuichi. On log-sum inequalities. *Linear and Multilinear Algebra*. 2023. ArXiv:2005.03272.

2022

13. Supriyo Dutta, Partha Guha. An Information-Theoretic Entropy Related to Ihara ζ Function and Billiard Dynamics. *Mathematical Analysis and Applications, MAA 2020, Jamshedpur, India*. Print ISBN: 978-981-16-8176-9. 2022.

2021

12. Ramita Sarkar, Supriyo Dutta, Subhashish Banerjee, Prasanta K. Panigrahi. Phase Squeezing of Quantum Hypergraph States. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 54, 135501, 2021. ArXiv: 2009.01082.
11. Supriyo Dutta, Shigeru Furuichi, Partha Guha. A two-parameter entropy and its fundamental properties. *Reviews in Mathematical Physics*, 33 (4), 2130003, 2021. ArXiv:1908.01696.

2020

10. Siddhant Singh, Bibhas Adhikari, Supriyo Dutta, David Zueco. Perfect state transfer on hypercubes and its implementation using superconducting qubits. *Physical Review A* 102 (6), 062609, 2020. ArXiv:2011.03586.
9. Supriyo Dutta. Constructing Non-isomorphic Signless Laplacian Cospectral Graphs. *Discrete Mathematics*, 343(04): 111783, 2020. ArXiv:1808.04054.
8. Supriyo Dutta, Bibhas Adhikari. Construction of cospectral graphs. *Journal of Algebraic Combinatorics*, 52, 215–235. 2020. ArXiv:1808.03490.

2019

7. Supriyo Dutta, Ramita Sarkar, Prasanta K Panigrahi. Permutation Symmetric Hypergraph States and Multipartite Quantum Entanglement. *International Journal of Theoretical Physics*, 58(11): 3927–3944, 2019.
6. Souma Mazumdar, Supriyo Dutta, Partha Guha. Sharma-Mittal quantum discord. *Quantum Information Processing*, 18(6): 169, 2019. arXiv:1812.00752v2.
5. Javid Naikoo, Supriyo Dutta, Subhashish Banerjee. Facets of quantum information under non-Markovian evolution. *Physical Review A* 99(4): 042128, 2019. arXiv:1902.01394.

4. Supriyo Dutta, Bibhas Adhikari, Subhashish Banerjee. Condition for zero and nonzero discord in graph Laplacian quantum states. *International Journal of Quantum Information*, 17(02): 1950018, 2019. arXiv:1705.00808v2.

2018

2017

3. Supriyo Dutta, Bibhas Adhikari, Subhashish Banerjee. Quantum discord of states arising from graphs. *Quantum Information Processing*, 16(8): 183, 2017. arXiv:1702.06360v1.

2016

2. Supriyo Dutta, Bibhas Adhikari, Subhashish Banerjee, R. Srikanth. Bipartite separability and nonlocal quantum operations on graphs. *Physical Review A*, 94 (1): 012306, 2016. arXiv:1601.07704v2.
1. Supriyo Dutta, Bibhas Adhikari, Subhashish Banerjee. A graph theoretical approach to states and unitary operations. *Quantum Information Processing*, 15 (5):2193-2212, 2016. arXiv:1502.07821v2.