

Publications Hans J. Briegel

Preprints:

1. *Construction of optimal resources for concatenated quantum protocols*, A. Pirker, J. Wallnöfer, H. J. Briegel, and W. Dür, arXiv:1612.09444 [quant-ph] (2017)
2. *Flexible resources for quantum metrology*, N. Friis, D. Orsucci, M. Skotiniotis, P. Sekatski, V. Dunjko, H. J. Briegel, W. Dür, arXiv:1610.09999 [quant-ph] (2016)
3. *Entanglement generation secure against general attacks*, A. Pirker, V. Dunjko, W. Dür, H. J. Briegel, arXiv:1610.01907 [quant-ph] (2016)
4. *Topological Code Switching in Two Dimensions*, H. Poulsen Nautrup, N. Friis, H. J. Briegel, arXiv:1609.08062 [quant-ph] (2016)
5. *Quantum machine learning with glow for episodic tasks and decision games*, J. Clausen, H. J. Briegel, arXiv:1601.07358 [quant-ph] (2016)
6. *Projective simulation with generalization*, A. A. Melnikov, A. Makmal, V. Dunjko, H. J. Briegel, arXiv:1504.02247 [cs.AI] (2015)
7. *Sequential quantum mixing for slowly evolving sequences of Markov chains*, V. Dunjko, H. J. Briegel, arXiv:1503.01334 [quant-ph] (2015)
8. *In-situ characterization of quantum devices with error correction*, J. Combes, C. Ferrie, C. Cesare, M. Tiersch, G. Milburn, H. J. Briegel, C. M. Caves, arXiv.org:1405.5656 [quant-ph] (2014)
9. *Stochastic libertarianism: How to maintain integrity in action without determinism*, T. Müller, H. J. Briegel, philSci-archive. pitt.edu/id/eprint/10223 (2014)

Refereed and Invited Articles

10. *Versatile cluster entangled light*, H. J. Briegel, Science 354, 416 (2016)
11. *Quantum-Enhanced Machine Learning*, V. Dunjko, J. M. Taylor, H. J. Briegel, Phys. Rev. Lett. 117, 130501 (2016)
12. *Meta-learning within Projective Simulation*, A. Makmal, A. A. Melnikov, V. Dunjko, H. J. Briegel, IEEE Access 4, 2110 (2016)

13. *Estimation of coherent error sources from stabilizer measurements*, D. Orsucci, M. Tiersch, H. J. Briegel, Phys. Rev. A 93, 042303 (2016)
14. *Measurement-based Quantum Communication*, M. Zwerger, H. J. Briegel, W. Dür, Appl. Phys. B 122, 50 (2016)
15. *Quantum walks on embedded hypercubes: Non-symmetric and non-local cases* A. Makmal, M. Tiersch, C. Ganahl, H. J. Briegel, Phys. Rev. A 93, 022322 (2016)
16. *Coherent controlization using superconducting qubits*, N. Friis, A. A. Melnikov, G. Kirchmair, H. J. Briegel, Sci. Rep. 5, 18036 (2015)
17. *Adaptive quantum computation in changing environments using projective simulation*, M. Tiersch, E. J. Ganahl, H. J. Briegel, Sci. Rep. 5, 12874 (2015)
18. *A chance for attributable agency*, H. J. Briegel, T. Müller, Minds Mach. 25, 261 (2015)
19. *Quantum mixing of Markov chains for special distributions*, V. Dunjko, H. J. Briegel, New J. Phys. 17, 073004 (2015)
20. *Quantum-enhanced deliberation of learning agents using trapped ions*, V. Dunjko, N. Friis, H. J. Briegel, New J. Phys. 17, 023006 (2015)
21. *Projective simulation for classical learning agents: a comprehensive investigation* J. Mautner, A. Makmal, D. Manzano, M. Tiersch, H. J. Briegel, New Gener. Comput. 33, 69 (2015)
22. *Demonstrating elements of measurement-based quantum error correction*, S. Barz, R. Vasconcelos, C. Greganti, M. Zwerger, W. Dür, H. J. Briegel, P. Walther, Phys. Rev. A 90 042302 (2014)
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24. *Quantum walks on embedded hypercubes*, A. Makmal, M. Zhu, D. Manzano, M. Tiersch, H. J. Briegel, Phys. Rev. A 90, 022314 (2014)
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26. *Robustness of hashing protocols for entanglement purification*, M. Zwerger, H. J. Briegel, W. Dür, Phys. Rev. A 90 012314 (2014)
27. *Quantum Speedup for Active Learning Agents*, G. Paparo, V. Dunjko, A. Makmal, M. A. Martin-Delgado, H. J. Briegel, Phys. Rev. X 4 031002 (2014)
28. *Reducing space-time to binary information*, S. Weinfurter, G. De las Cuevas, M. A. Martin-Delgado, H. J. Briegel, J. Phys. A: Math. Gen. 47 095301 (2014)

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30. *Implementing quantum control for unknown subroutines*, N. Friis, V. Dunjko, W. Dür, H. J. Briegel, *Phys. Rev. A* 89.030303 (2014)
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34. *Measurement-based quantum computation with trapped ions*, B. P. Lanyon, P. Jurcevic, M. Zwerger, C. Hempel, E. A. Martínez, W. Dür, H. J. Briegel, R. Blatt, C. F. Roos, *Phys. Rev. Lett.* 111 210501 (2013)
35. *Universal and Optimal Error Thresholds for Measurement-Based Entanglement Purification*, M. Zwerger, H. J. Briegel, W. Dür, *Phys. Rev. Lett.* 110 260503 (2013)
36. *Heat transport through lattices of quantum harmonic oscillators in arbitrary dimensions*, A. Asadian, D. Manzano, M. Tiersch, H. J. Briegel, *Phys. Rev. E* 87 012109 (2013)
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47. *The U(1) Lattice Gauge Theory Universally Connects All Classical Models with Continuous Variables, Including Background Gravity*, Y. Xu, G. De las Cuevas, W. Dür, H. J. Briegel, M. A. Martin-Delgado, *Journal of Statistical Mechanics* P02013 (2011)
48. *Decoherence of many-body systems due to many-body interactions*, T. Carle, H. J. Briegel, B. Kraus, *Physical Review A* 84, 012105 (2011)
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50. *Universal quantum computer from a quantum magnet*, J. Cai, A. Miyake, W. Dür, H. J. Briegel, *Physical Review A* 82, 052309 (2010)
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57. *Quantum algorithms for spin models and simulable gate sets for quantum computation*, M. Van den Nest, W. Dür, R. Raussendorf, H. J. Briegel, *Physical Review A* 80, 052334 (2009)
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Invited Book Chapters

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