

# Vlatko Vedral

## List of Publications by Year in descending order

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Version: 2024-02-01

214  
papers

16,044  
citations

47409

49  
h-index

18944

123  
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221  
all docs

221  
docs citations

221  
times ranked

7619  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Signatures of causality and determinism in a quantum theory of events. <i>Physical Review A</i> , 2022, 105, .   | 1.0  | 0         |
| 2  | The quantum totalitarian property and exact symmetries. <i>AVS Quantum Science</i> , 2022, 4, .  | 1.8  | 5         |
| 3  | Quantum signatures of gravity from superpositions of primordial massive particles. <i>Physical Review D</i> , 2022, 105, .   | 1.6  | 1         |
| 4  | Surveying Structural Complexity in Quantum Many-Body Systems. <i>Journal of Statistical Physics</i> , 2022, 187, 1.  | 0.5  | 2         |
| 5  | Emergence of Constructor-Based Irreversibility in Quantum Systems: Theory and Experiment. <i>Physical Review Letters</i> , 2022, 128, 080401.                        | 2.9  | 4         |
| 6  | Non-Gaussianity as a Signature of a Quantum Theory of Gravity. <i>PRX Quantum</i> , 2021, 2, .   | 3.5  | 59        |
| 7  | Decoherence effects in non-classicality tests of gravity. <i>New Journal of Physics</i> , 2021, 23, 043040.  | 1.2  | 31        |
| 8  | Interference in the Heisenberg picture of quantum field theory, local elements of reality, and fermions. <i>Physical Review D</i> , 2021, 104, .                     | 1.6  | 4         |
| 9  | Temporal teleportation with pseudo-density operators: How dynamics emerges from temporal entanglement. <i>Science Advances</i> , 2021, 7, eabe4742.                  | 4.7  | 5         |
| 10 | Aharonov-Bohm Phase is Locally Generated Like All Other Quantum Phases. <i>Physical Review Letters</i> , 2020, 125, 040401.  | 2.9  | 30        |
| 11 | Quantum Refrigeration with Indefinite Causal Order. <i>Physical Review Letters</i> , 2020, 125, 070603.  | 2.9  | 52        |
| 12 | Witnessing nonclassicality beyond quantum theory. <i>Physical Review D</i> , 2020, 102, .  | 1.6  | 28        |
| 13 | Reaching out. <i>Nature Reviews Physics</i> , 2020, 2, 282-284.  | 11.9 | 6         |
| 14 | Information fluctuation theorem for an open quantum bipartite system. <i>Physical Review E</i> , 2020, 101, 052128.  | 0.8  | 9         |
| 15 | Non-Monogamy of Spatio-Temporal Correlations and the Black Hole Information Loss Paradox. <i>Entropy</i> , 2020, 22, 228.  | 1.1  | 4         |
| 16 | Quantum synchronization in nanoscale heat engines. <i>Physical Review E</i> , 2020, 101, 020201.   | 0.8  | 33        |
| 17 | Different instances of time as different quantum modes: quantum states across space-time for continuous variables. <i>New Journal of Physics</i> , 2020, 22, 023029. | 1.2  | 5         |
| 18 | Experimental Self-Characterization of Quantum Measurements. <i>Physical Review Letters</i> , 2020, 124, 040402.  | 2.9  | 15        |

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|----|---|-----|-----------|
| 19 | Emergence of correlated proton tunnelling in water ice. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180867.   | 1.0 | 2         |
| 20 | Modular quantum computation in a trapped ion system. Nature Communications, 2019, 10, 4692.   | 5.8 | 8         |
| 21 | Causal Limit on Quantum Communication. Physical Review Letters, 2019, 123, 150502.  | 2.9 | 13        |
| 22 | Out of equilibrium thermodynamics of quantum harmonic chains. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 104014.  | 0.9 | 3         |
| 23 | Theoretical description and experimental simulation of quantum entanglement near open time-like curves via pseudo-density operators. Nature Communications, 2019, 10, 182.                                      | 5.8 | 9         |
| 24 | Engineering statistical transmutation of identical quantum particles. Physical Review B, 2019, 99, .  | 1.1 | 6         |
| 25 | Uncertainty equality with quantum memory and its experimental verification. Npj Quantum Information, 2019, 5, .   | 2.8 | 21        |
| 26 | Operational advantage of basis-independent quantum coherence. Europhysics Letters, 2019, 125, 50005.  | 0.7 | 24        |
| 27 | Is the fermionic exchange phase also acquired locally?. Journal of Physics Communications, 2019, 3, 111001.   | 0.5 | 1         |
| 28 | Quantum Physics and Time from Inconsistent Marginals. The Frontiers Collection, 2018, , 273-280.  | 0.1 | 0         |
| 29 | Squeezing Enhances Quantum Synchronization. Physical Review Letters, 2018, 120, 163601.   | 2.9 | 76        |
| 30 | Quantum plug nâ€™™ play: modular computation in the quantum regime. New Journal of Physics, 2018, 20, 013004.   | 1.2 | 19        |
| 31 | Geometry of quantum correlations in space-time. Physical Review A, 2018, 98, .  | 1.0 | 16        |
| 32 | Experimental test of the relation between coherence and path information. Communications Physics, 2018, 1, .  | 2.0 | 9         |
| 33 | Measuring quantumness: from theory to observability in interferometric setups. European Physical Journal D, 2018, 72, 1.  | 0.6 | 7         |
| 34 | Probing quantum features of photosynthetic organisms. Npj Quantum Information, 2018, 4, .   | 2.8 | 25        |
| 35 | Proton tunnelling in hydrogen bonds and its implications in an induced-fit model of enzyme catalysis. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20180037. | 1.0 | 19        |
| 36 | Maximum one-shot dissipated work from RÃ©nyi divergences. Physical Review E, 2018, 97, 052135.  | 0.8 | 7         |

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|----|--|------|-----------|
| 37 | Law and Disorder. <i>New Scientist</i> , 2018, 237, 32-35.   | 0.0  | 2         |
| 38 | When can gravity path-entangle two spatially superposed masses?. <i>Physical Review D</i> , 2018, 98, .  | 1.6  | 29        |
| 39 | Causal Asymmetry in a Quantum World. <i>Physical Review X</i> , 2018, 8, .   | 2.8  | 26        |
| 40 | Operational effects of the UNOT gate on classical and quantum correlations. <i>Science Bulletin</i> , 2018, 63, 765-770.   | 4.3  | 4         |
| 41 | Can we hear the sounds of quantum superpositions?. <i>Musicology</i> , 2018, , 15-19.  | 0.1  | 2         |
| 42 | Introductory Quantum Physics and Relativity. , 2018, , .   |      | 0         |
| 43 | Influence of the fermionic exchange symmetry beyond Pauli's exclusion principle. <i>Physical Review A</i> , 2017, 95, .  | 1.0  | 20        |
| 44 | Universal upper bounds on the Bose-Einstein condensate and the Hubbard star. <i>Physical Review B</i> , 2017, 96, .  | 1.1  | 11        |
| 45 | Detecting metrologically useful asymmetry and entanglement by a few local measurements. <i>Physical Review A</i> , 2017, 96, .   | 1.0  | 37        |
| 46 | Operational one-to-one mapping between coherence and entanglement measures. <i>Physical Review A</i> , 2017, 96, .   | 1.0  | 101       |
| 47 | Quantum effects in the gravitational field. <i>Nature</i> , 2017, 549, 31-31.  | 13.7 | 2         |
| 48 | Using quantum theory to simplify input-output processes. <i>Npj Quantum Information</i> , 2017, 3, .   | 2.8  | 29        |
| 49 | A Nanophotonic Structure Containing Living Photosynthetic Bacteria. <i>Small</i> , 2017, 13, 1701777.  | 5.2  | 46        |
| 50 | Gravitationally Induced Entanglement between Two Massive Particles is Sufficient Evidence of Quantum Effects in Gravity. <i>Physical Review Letters</i> , 2017, 119, 240402. | 2.9  | 358       |
| 51 | Entropic equality for worst-case work at any protocol speed. <i>New Journal of Physics</i> , 2017, 19, 043013.   | 1.2  | 12        |
| 52 | Thermodynamics of complexity and pattern manipulation. <i>Physical Review E</i> , 2017, 95, 042140.  | 0.8  | 20        |
| 53 | No-Hypersignaling Principle. <i>Physical Review Letters</i> , 2017, 119, 020401.   | 2.9  | 22        |
| 54 | Device-Independent Tests of Quantum Measurements. <i>Physical Review Letters</i> , 2017, 118, 250501.  | 2.9  | 19        |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 55 | Local reversibility and entanglement structure of many-body ground states. Quantum Science and Technology, 2017, 2, 015005.                            | 2.6  | 14        |
| 56 | Provably unbounded memory advantage in stochastic simulation using quantum mechanics. New Journal of Physics, 2017, 19, 103009.                        | 1.2  | 22        |
| 57 | Witness gravity's quantum side in the lab. Nature, 2017, 547, 156-158.   | 13.7 | 24        |
| 58 | Time, (Inverse) Temperature and Cosmological Inflation as Entanglement. Tutorials, Schools, and Workshops in the Mathematical Sciences, 2017, , 27-42. | 0.3  | 1         |
| 59 | Macroscopic Quantum Resonators (MAQRO): 2015 update. EPJ Quantum Technology, 2016, 3, .  | 2.9  | 77        |
| 60 | Pinning of fermionic occupation numbers: Higher spatial dimensions and spin. Physical Review A, 2016, 94, .  | 1.0  | 17        |
| 61 | Quantum correlations which imply causation. Scientific Reports, 2016, 5, 18281.  | 1.6  | 69        |
| 62 | General framework for quantum macroscopicity in terms of coherence. Physical Review A, 2016, 93, .   | 1.0  | 95        |
| 63 | Entanglement Rényi $\alpha$ -entropy. Physical Review A, 2016, 93, .   | 1.0  | 28        |
| 64 | Power of one qumode for quantum computation. Physical Review A, 2016, 93, .  | 1.0  | 26        |
| 65 | Converting Coherence to Quantum Correlations. Physical Review Letters, 2016, 116, 160407.  | 2.9  | 335       |
| 66 | Pinning of fermionic occupation numbers: General concepts and one spatial dimension. Physical Review A, 2016, 93, .                                    | 1.0  | 21        |
| 67 | Quantum Processes Which Do Not Use Coherence. Physical Review X, 2016, 6, .  | 2.8  | 115       |
| 68 | Verifying Heisenberg's error-disturbance relation using a single trapped ion. Science Advances, 2016, 2, e1600578.                                     | 4.7  | 29        |
| 69 | How discord underlies the noise resilience of quantum illumination. New Journal of Physics, 2016, 18, 043027.  | 1.2  | 65        |
| 70 | Quantum thermodynamics for a model of an expanding Universe. Classical and Quantum Gravity, 2016, 33, 035003.  | 1.5  | 6         |
| 71 | Photonic Maxwell's Demon. Physical Review Letters, 2016, 116, 050401.  | 2.9  | 137       |
| 72 | Quantum macroscopicity versus distillation of macroscopic superpositions. Physical Review A, 2015, 92, .   | 1.0  | 14        |

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|----|---|-----|-----------|
| 73 | Replicating the benefits of Deutschian closed timelike curves without breaking causality. Npj Quantum Information, 2015, 1, .   | 2.8 | 13        |
| 74 | Introducing one-shot work into fluctuation relations. New Journal of Physics, 2015, 17, 095003.   | 1.2 | 48        |
| 75 | Scale-estimation of quantum coherent energy transport in multiple-minima systems. Scientific Reports, 2015, 4, 5520.  | 1.6 | 6         |
| 76 | Majorana transport in superconducting nanowire with Rashba and Dresselhaus spin-orbit couplings. Journal of Physics Condensed Matter, 2015, 27, 225302.                 | 0.7 | 3         |
| 77 | Quantum optics, molecular spectroscopy and low-temperature spectroscopy: general discussion. Faraday Discussions, 2015, 184, 275-303.                                   | 1.6 | 13        |
| 78 | Towards witnessing quantum effects in complex molecules. Faraday Discussions, 2015, 184, 183-191.   | 1.6 | 2         |
| 79 | Classification of macroscopic quantum effects. Optics Communications, 2015, 337, 22-26.   | 1.0 | 17        |
| 80 | Universal optimal quantum correlator. International Journal of Quantum Information, 2014, 12, 1560002.  | 0.6 | 8         |
| 81 | Discord as a quantum resource for bi-partite communication. , 2014, , .   |     | 0         |
| 82 | Experimental verification of quantum discord in continuous-variable states and operational significance of discord consumption. , 2014, , .                             |     | 1         |
| 83 | Local Convertibility and the Quantum Simulation of Edge States in Many-Body Systems. Physical Review X, 2014, 4, .  | 2.8 | 16        |
| 84 | Publisher's Note: Guaranteed Energy-Efficient Bit Reset in Finite Time [Phys. Rev. Lett.113, 100603 (2014)]. Physical Review Letters, 2014, 113, .                      | 2.9 | 1         |
| 85 | The uncertainty principle enables non-classical dynamics in an interferometer. Nature Communications, 2014, 5, 4592.  | 5.8 | 14        |
| 86 | Quantum entanglement. Nature Physics, 2014, 10, 256-258.  | 6.5 | 94        |
| 87 | Guaranteed Energy-Efficient Bit Reset in Finite Time. Physical Review Letters, 2014, 113, 100603.   | 2.9 | 29        |
| 88 | Towards quantifying complexity with quantum mechanics. European Physical Journal Plus, 2014, 129, 1.  | 1.2 | 12        |
| 89 | Topological quantum phase transitions in the spin-singlet superconductor with Rashba and Dresselhaus (110) spin-orbit couplings. Annals of Physics, 2014, 349, 189-200. | 1.0 | 4         |
| 90 | Maxwell's Daemon: Information versus Particle Statistics. Scientific Reports, 2014, 4, 6995.  | 1.6 | 14        |

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|-----|--|-----|-----------|
| 91  | CORRELATIONS IN QUANTUM PHYSICS. International Journal of Modern Physics B, 2013, 27, 1345017.   | 1.0 | 6         |
| 92  | Quantum information: Are we nearly there yet?. New Scientist, 2013, 219, viii.   | 0.0 | 0         |
| 93  | Requirement of Dissonance in Assisted Optimal State Discrimination. Scientific Reports, 2013, 3, 2134.   | 1.6 | 25        |
| 94  | Local characterization of one-dimensional topologically ordered states. Physical Review B, 2013, 88, .   | 1.1 | 25        |
| 95  | Experimental Generation of Quantum Discord via Noisy Processes. Physical Review Letters, 2013, 111, 100504.  | 2.9 | 50        |
| 96  | Wigner rotations and an apparent paradox in relativistic quantum information. Physical Review A, 2013, 87, .   | 1.0 | 13        |
| 97  | Extracting Quantum Work Statistics and Fluctuation Theorems by Single-Qubit Interferometry. Physical Review Letters, 2013, 110, 230601.  | 2.9 | 247       |
| 98  | A framework for phase and interference in generalized probabilistic theories. New Journal of Physics, 2013, 15, 093044.  | 1.2 | 19        |
| 99  | Witnessing the quantumness of a single system: From anticommutators to interference and discord. Physical Review A, 2013, 87, .  | 1.0 | 6         |
| 100 | Majorana fermions in $s$ -wave noncentrosymmetric superconductor with Dresselhaus (110) spin-orbit coupling. Physical Review B, 2013, 87, .  | 1.1 | 24        |
| 101 | Comment on "Quantum Szilard Engine". Physical Review Letters, 2013, 111, 188901.   | 2.9 | 13        |
| 102 | Topological features of good resources for measurement-based quantum computation. Mathematical Structures in Computer Science, 2013, 23, 441-453.                                      | 0.5 | 2         |
| 103 | The curious state of quantum physics. Physics World, 2013, 26, 30-32.  | 0.0 | 2         |
| 104 | Extracting quantum work statistics by single qubit interferometry. , 2013, , .   |     | 0         |
| 105 | Extracting quantum work statistics by single qubit interferometry. , 2013, , .   |     | 0         |
| 106 | Quantumness and entanglement witnesses. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 105302.  | 0.7 | 11        |
| 107 | Information-theoretic lower bound on energy cost of stochastic computation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 4058-4066. | 1.0 | 15        |
| 108 | Quantum nonlocality test by spectral joint measurements of qubits in driven cavity. Europhysics Letters, 2012, 100, 10007.   | 0.7 | 4         |

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|-----|--|------|-----------|
| 109 | Classical to quantum in large-number limit. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 4810-4820. | 1.6  | 7         |
| 110 | The classical-quantum boundary for correlations: Discord and related measures. Reviews of Modern Physics, 2012, 84, 1655-1707.                           | 16.4 | 1,273     |
| 111 | Effects of quantum coherence in metalloprotein electron transfer. Physical Review E, 2012, 86, 031922.   | 0.8  | 11        |
| 112 | The surprise theory of everything. New Scientist, 2012, 216, 32-37.  | 0.0  | 1         |
| 113 | Towards quantum simulations of biological information flow. Interface Focus, 2012, 2, 522-528.   | 1.5  | 15        |
| 114 | An information-theoretic equality implying the Jarzynski relation. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 272001.                 | 0.7  | 34        |
| 115 | Quantum phases with differing computational power. Nature Communications, 2012, 3, 812.  | 5.8  | 62        |
| 116 | Unifying Typical Entanglement and Coin Tossing: on Randomization in Probabilistic Theories. Communications in Mathematical Physics, 2012, 316, 441-487.  | 1.0  | 24        |
| 117 | Topological order in 1D Cluster state protected by symmetry. Quantum Information Processing, 2012, 11, 1961-1968.  | 1.0  | 42        |
| 118 | Physical interpretation of the Wigner rotations and its implications for relativistic quantum information. New Journal of Physics, 2012, 14, 023041.     | 1.2  | 40        |
| 119 | Observing the operational significance of discord consumption. Nature Physics, 2012, 8, 671-675.   | 6.5  | 201       |
| 120 | Quantum mechanics can reduce the complexity of classical models. Nature Communications, 2012, 3, 762.  | 5.8  | 79        |
| 121 | Quantum discord as resource for remote state preparation. Nature Physics, 2012, 8, 666-670.  | 6.5  | 397       |
| 122 | Emergent Thermodynamics in a Quenched Quantum Many-Body System. Physical Review Letters, 2012, 109, 160601.  | 2.9  | 119       |
| 123 | Information and Physics. Information (Switzerland), 2012, 3, 219-223.  | 1.7  | 14        |
| 124 | Moving Beyond Trust in Quantum Computing. Science, 2012, 335, 294-295.   | 6.0  | 5         |
| 125 | Spin quantum correlations of relativistic particles. Physical Review A, 2012, 85, .  | 1.0  | 28        |
| 126 | Quantum phase transition between cluster and antiferromagnetic states. Europhysics Letters, 2011, 95, 50001.   | 0.7  | 74        |

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|-----|--|------|-----------|
| 127 | Sustained Quantum Coherence and Entanglement in the Avian Compass. <i>Physical Review Letters</i> , 2011, 106, 040503.   | 2.9  | 255       |
| 128 | Behavior of entanglement and Cooper pairs under relativistic boosts. <i>Physical Review A</i> , 2011, 84, .  | 1.0  | 20        |
| 129 | Global asymmetry of many-qubit correlations: A lattice-gauge-theory approach. <i>Physical Review A</i> , 2011, 84, .   | 1.0  | 4         |
| 130 | Living in a Quantum World. <i>Scientific American</i> , 2011, 304, 38-43.  | 1.0  | 59        |
| 131 | The thermodynamic meaning of negative entropy. <i>Nature</i> , 2011, 474, 61-63.   | 13.7 | 287       |
| 132 | Quantum Correlations in Biomolecules. <i>Procedia Chemistry</i> , 2011, 3, 172-175.  | 0.7  | 4         |
| 133 | Experimental demonstration of a unified framework for mixed-state geometric phases. <i>Europhysics Letters</i> , 2011, 94, 20007.  | 0.7  | 17        |
| 134 | Generating topological order from a two-dimensional cluster state using a duality mapping. <i>New Journal of Physics</i> , 2011, 13, 065010.   | 1.2  | 15        |
| 135 | Extreme nonlocality with one photon. <i>New Journal of Physics</i> , 2011, 13, 053054.   | 1.2  | 76        |
| 136 | Natural mode entanglement as a resource for quantum communication. , 2011, , .   |      | 0         |
| 137 | Quantum Correlations in Mixed-State Metrology. <i>Physical Review X</i> , 2011, 1, .   | 2.8  | 78        |
| 138 | Statistical mechanics of the cluster Ising model. <i>Physical Review A</i> , 2011, 84, .   | 1.0  | 84        |
| 139 | Geometric local invariants and pure three-qubit states. <i>Physical Review A</i> , 2011, 83, .   | 1.0  | 15        |
| 140 | Physically realizable entanglement by local continuous measurements. <i>Physical Review A</i> , 2011, 83, .  | 1.0  | 17        |
| 141 | Entanglement spectrum: Identification of the transition from vortex-liquid to vortex-lattice state in a weakly interacting rotating Bose-Einstein condensate. <i>Physical Review A</i> , 2011, 83, . | 1.0  | 13        |
| 142 | A functional interpretation of continuous variable quantum discord. , 2011, , .  |      | 0         |
| 143 | Inadequacy of von Neumann entropy for characterizing extractable work. <i>New Journal of Physics</i> , 2011, 13, 053015.   | 1.2  | 115       |
| 144 | Unification of quantum and classical correlations and quantumness measures. <i>AIP Conference Proceedings</i> , 2011, , .  | 0.3  | 14        |

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|-----|--|------|-----------|
| 145 | Unified View of Quantum and Classical Correlations. Physical Review Letters, 2010, 104, 080501.  | 2.9  | 689       |
| 146 | Necessary and Sufficient Condition for Nonzero Quantum Discord. Physical Review Letters, 2010, 105, 190502.                                  | 2.9  | 1,026     |
| 147 | Detecting entanglement with Jarzynski's equality. Physical Review A, 2010, 81, .   | 1.0  | 6         |
| 148 | The Elusive Source of Quantum Speedup. Foundations of Physics, 2010, 40, 1141-1154.  | 0.6  | 43        |
| 149 | Entanglement in disordered and non-equilibrium systems. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 359-362.            | 1.3  | 7         |
| 150 | Hot entanglement. Nature, 2010, 468, 769-770.  | 13.7 | 22        |
| 151 | Entanglement in pure and thermal cluster states. New Journal of Physics, 2010, 12, 053015.   | 1.2  | 10        |
| 152 | Kaszlikowski's Reply. Physical Review Letters, 2010, 104, .  | 2.9  | 3         |
| 153 | Entanglement at the quantum phase transition in a harmonic lattice. New Journal of Physics, 2010, 12, 025017.                                | 1.2  | 10        |
| 154 | Introductory Quantum Physics and Relativity. , 2010, , .   |      | 1         |
| 155 | Positive Phase Space Transformation Incompatible with Classical Physics. Physical Review Letters, 2009, 102, 110404.                         | 2.9  | 5         |
| 156 | Natural Mode Entanglement as a Resource for Quantum Communication. Physical Review Letters, 2009, 103, 200502.                               | 2.9  | 29        |
| 157 | Enhancing the Detection of Natural Thermal Entanglement with Disorder. Physical Review Letters, 2009, 102, 100503.                           | 2.9  | 17        |
| 158 | Entanglement production in non-equilibrium thermodynamics. Journal of Physics: Conference Series, 2009, 143, 012010.                         | 0.3  | 11        |
| 159 | Quantum Criticality of Ground and Thermal States in XX Model. Open Systems and Information Dynamics, 2009, 16, 281-286.                      | 0.5  | 2         |
| 160 | Effect of Entanglement on Geometric Phase for Multi-Qubit States. Open Systems and Information Dynamics, 2009, 16, 305-323.                  | 0.5  | 3         |
| 161 | A Simple Thermodynamical Witness Showing Universality of Macroscopic Entanglement. Open Systems and Information Dynamics, 2009, 16, 287-291. | 0.5  | 2         |
| 162 | Colloquium: The physics of Maxwell's demon and information. Reviews of Modern Physics, 2009, 81, 1-23.                                       | 16.4 | 469       |

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|-----|--|------|-----------|
| 163 | Entanglement and nonlocality of a single relativistic particle. <i>Physical Review A</i> , 2009, 80, .   | 1.0  | 38        |
| 164 | Quantum physics meets biology. <i>HFSP Journal</i> , 2009, 3, 386-400.   | 2.5  | 149       |
| 165 | How Much of One-Way Computation Is Just Thermodynamics?. <i>Foundations of Physics</i> , 2008, 38, 506-522.  | 0.6  | 9         |
| 166 | Schrödinger's Cat Meets Einstein's Twins: A Superposition of Different Clock Times. <i>International Journal of Theoretical Physics</i> , 2008, 47, 2126-2129. | 0.5  | 3         |
| 167 | Geometric phase induced by quantum nonlocality. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008, 372, 775-778.               | 0.9  | 27        |
| 168 | Entanglement in many-body systems. <i>Reviews of Modern Physics</i> , 2008, 80, 517-576.   | 16.4 | 2,781     |
| 169 | Quantum Correlation without Classical Correlations. <i>Physical Review Letters</i> , 2008, 101, 070502.  | 2.9  | 84        |
| 170 | Quantifying entanglement in macroscopic systems. <i>Nature</i> , 2008, 453, 1004-1007.   | 13.7 | 136       |
| 171 | Heat capacity as an indicator of entanglement. <i>Physical Review B</i> , 2008, 78, .  | 1.1  | 48        |
| 172 | THE SECOND QUANTIZED QUANTUM TURING MACHINE AND KOLMOGOROV COMPLEXITY. <i>Modern Physics Letters B</i> , 2008, 22, 1203-1210.                                  | 1.0  | 4         |
| 173 | Optomechanical to mechanical entanglement transformation. <i>New Journal of Physics</i> , 2008, 10, 095014.  | 1.2  | 33        |
| 174 | SECOND QUANTIZED KOLMOGOROV COMPLEXITY. <i>International Journal of Quantum Information</i> , 2008, 06, 907-928.   | 0.6  | 9         |
| 175 | Survival of entanglement in thermal states. <i>Europhysics Letters</i> , 2008, 81, 40006.  | 0.7  | 26        |
| 176 | Kaszlikowski's Reply. <i>Physical Review Letters</i> , 2008, 101, .  | 2.9  | 2         |
| 177 | Entanglement in doped resonating valence bond states. <i>Physical Review B</i> , 2008, 78, .   | 1.1  | 5         |
| 178 | CAN ENTANGLEMENT BE EXTRACTED FROM MANY BODY SYSTEMS?. <i>International Journal of Quantum Information</i> , 2007, 05, 125-130.                                | 0.6  | 0         |
| 179 | Witnessing macroscopic entanglement in a staggered magnetic field. <i>Physical Review A</i> , 2007, 76, .  | 1.0  | 14        |
| 180 | Quantumness without quantumness: entanglement as classical correlations in higher dimensions. <i>Journal of Modern Optics</i> , 2007, 54, 2185-2192.           | 0.6  | 2         |

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|-----|---|------|-----------|
| 181 | Dimensionality-induced entanglement in macroscopic dimer systems. <i>Physical Review A</i> , 2007, 76, .  | 1.0  | 5         |
| 182 | Regional Versus Global Entanglement in Resonating-Valence-Bond States. <i>Physical Review Letters</i> , 2007, 99, 170502.                                   | 2.9  | 36        |
| 183 | Spatial entanglement from off-diagonal long-range order in a Bose-Einstein condensate. <i>Physical Review A</i> , 2007, 76, .                               | 1.0  | 25        |
| 184 | Nonlocality of a Single Particle. <i>Physical Review Letters</i> , 2007, 99, 180404.  | 2.9  | 71        |
| 185 | Entanglement in single-particle systems. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2007, 463, 2277-2286. | 1.0  | 49        |
| 186 | Macroscopic Entanglement and Phase Transitions. <i>Open Systems and Information Dynamics</i> , 2007, 14, 1-16.  | 0.5  | 21        |
| 187 | Crucial role of quantum entanglement in bulk properties of solids. <i>Physical Review A</i> , 2006, 73, .   | 1.0  | 115       |
| 188 | How to Extract Entanglement from a Piece of Solid or a Bunch of Neutrons. <i>Acta Physica Hungarica A Heavy Ion Physics</i> , 2006, 26, 261-268.            | 0.4  | 1         |
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