

Armen Allahverdyan

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8398302/publications.pdf>

Version: 2024-02-01

82
papers

2,007
citations

361413
20
h-index

254184
43
g-index

82
all docs

82
docs citations

82
times ranked

1131
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Dissipative search of an unstructured database. <i>Physical Review A</i> , 2022, 105, . | 2.5 | 0 |
| 2 | Thermodynamic selection: mechanisms and scenarios. <i>New Journal of Physics</i> , 2022, 24, 053006. | 2.9 | 2 |
| 3 | Reexamination of Betz's Limit for Wind Engines. <i>Journal of Contemporary Physics</i> , 2021, 56, 38-46. | 0.6 | 1 |
| 4 | Two halves of a meaningful text are statistically different. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2021, 2021, 033413. | 2.3 | 1 |
| 5 | Dynamical symmetrization of the state of identical particles. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2021, 477, 20200911. | 2.1 | 2 |
| 6 | Validity limits of the maximum entropy method. <i>Chinese Journal of Physics</i> , 2021, 71, 95-111. | 3.9 | 6 |
| 7 | Energy dissipation and storage in adaptation and homeostasis. <i>Physics of Life Reviews</i> , 2021, 38, 137-139. | 2.8 | 2 |
| 8 | Nonequilibrium, weak-field-induced cyclotron motion: A mechanism for magnetobiology. <i>Physical Review E</i> , 2021, 104, 064407. | 2.1 | 2 |
| 9 | Leadership scenarios in prisoner's dilemma game. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 545, 123020. | 2.6 | 4 |
| 10 | Work Extraction from Fluid Flow: The Analog of Carnot's Efficiency. <i>Physical Review Letters</i> , 2020, 125, 064503. | 7.8 | 2 |
| 11 | Energy and entropy: Path from game theory to statistical mechanics. <i>Physical Review Research</i> , 2020, 2, . | 3.6 | 46 |
| 12 | Polymorphism in rapidly changing cyclic environment. <i>Physical Review E</i> , 2019, 100, 032401. | 2.1 | 7 |
| 13 | Active image restoration. <i>Physical Review E</i> , 2018, 98, . | 2.1 | 1 |
| 14 | Defining the Work Done on an Electromagnetic Field. <i>Physical Review Letters</i> , 2018, 121, 240602. | 7.8 | 1 |
| 15 | Adaptive decision making via entropy minimization. <i>International Journal of Approximate Reasoning</i> , 2018, 103, 270-287. | 3.3 | 18 |
| 16 | Quantum non-locality co-exists with locality. <i>Europhysics Letters</i> , 2018, 122, 40005. | 2.0 | 1 |
| 17 | Free energy for non-equilibrium quasi-stationary states. <i>Europhysics Letters</i> , 2017, 117, 50004. | 2.0 | 3 |
| 18 | A sub-ensemble theory of ideal quantum measurement processes. <i>Annals of Physics</i> , 2017, 376, 324-352. | 2.8 | 67 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Modeling gasodynamic vortex cooling. <i>Physical Review Fluids</i> , 2017, 2, . | 2.5 | 1 |
| 20 | Stochastic Model for Phonemes Uncovers an Author-Dependency of Their Usage. <i>PLoS ONE</i> , 2016, 11, e0152561. | 2.5 | 4 |
| 21 | Time arrow is influenced by the dark energy. <i>Physical Review E</i> , 2016, 93, 052125. | 2.1 | 7 |
| 22 | Adaptive Heat Engine. <i>Physical Review Letters</i> , 2016, 117, 030601. | 7.8 | 9 |
| 23 | Electromagnetic gauge-freedom and work. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2016, 49, 285001. | 2.1 | 3 |
| 24 | Non-random structures in universal compression and the Fermi paradox. <i>European Physical Journal Plus</i> , 2016, 131, 1. | 2.6 | 2 |
| 25 | Emergence of Leadership in Communication. <i>PLoS ONE</i> , 2016, 11, e0159301. | 2.5 | 10 |
| 26 | Memory-induced mechanism for self-sustaining activity in networks. <i>Physical Review E</i> , 2015, 92, 062824. | 2.1 | 1 |
| 27 | Active Inference for Binary Symmetric Hidden Markov Models. <i>Journal of Statistical Physics</i> , 2015, 161, 452-466. | 1.2 | 4 |
| 28 | Opinion Dynamics with Confirmation Bias. <i>PLoS ONE</i> , 2014, 9, e99557. | 2.5 | 54 |
| 29 | Phase transitions in community detection: A solvable toy model. <i>Europhysics Letters</i> , 2014, 106, 48004. | 2.0 | 8 |
| 30 | Rank-frequency relation for Chinese characters. <i>European Physical Journal B</i> , 2014, 87, 1. | 1.5 | 15 |
| 31 | Nonequilibrium quantum fluctuations of work. <i>Physical Review E</i> , 2014, 90, 032137. | 2.1 | 101 |
| 32 | Carnot Cycle at Finite Power: Attainability of Maximal Efficiency. <i>Physical Review Letters</i> , 2013, 111, 050601. | 7.8 | 112 |
| 33 | Explaining Zipf's law via a mental lexicon. <i>Physical Review E</i> , 2013, 88, 062804. | 2.1 | 17 |
| 34 | Understanding quantum measurement from the solution of dynamical models. <i>Physics Reports</i> , 2013, 525, 1-166. | 25.6 | 160 |
| 35 | Adaptive machine and its thermodynamic costs. <i>Physical Review E</i> , 2013, 87, . | 2.1 | 8 |
| 36 | Stabilization and Anomalous Hydration of Collagen Fibril under Heating. <i>PLoS ONE</i> , 2013, 8, e78526. | 2.5 | 25 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Le Chatelier's principle in replicator dynamics. <i>Physical Review E</i> , 2011, 84, 041117. | 2.1 | 6 |
| 38 | Work extraction from microcanonical bath. <i>Europhysics Letters</i> , 2011, 95, 60004. | 2.0 | 16 |
| 39 | Thermodynamic limits of dynamic cooling. <i>Physical Review E</i> , 2011, 84, 041109. | 2.1 | 43 |
| 40 | Glassy state of native collagen fibril?. <i>Europhysics Letters</i> , 2011, 95, 23001. | 2.0 | 7 |
| 41 | Statistical mechanics of semi-supervised clustering in sparse graphs. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2011, 2011, P08009. | 2.3 | 5 |
| 42 | Community detection with and without prior information. <i>Europhysics Letters</i> , 2010, 90, 18002. | 2.0 | 28 |
| 43 | Simultaneous measurement of non-commuting observables. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 339-342. | 2.7 | 10 |
| 44 | The thermodynamics of enhanced heat transfer: a model study. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010, 2010, P06010. | 2.3 | 2 |
| 45 | Transferring elements of a density matrix. <i>Physical Review A</i> , 2010, 81, . | 2.5 | 3 |
| 46 | Optimal refrigerator. <i>Physical Review E</i> , 2010, 81, 051129. | 2.1 | 94 |
| 47 | FEEDBACK-DRIVEN ADIABATIC QUANTUM DYNAMICS. , 2010, , . | | 0 |
| 48 | How adsorption influences DNA denaturation. <i>Physical Review E</i> , 2009, 79, 031903. | 2.1 | 12 |
| 49 | Replicators in a Fine-Grained Environment: Adaptation and Polymorphism. <i>Physical Review Letters</i> , 2009, 102, 058102. | 7.8 | 10 |
| 50 | Kinetics of the helix-coil transition. <i>Europhysics Letters</i> , 2009, 86, 53002. | 2.0 | 4 |
| 51 | Thermodynamic efficiency of information and heat flow. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009, 2009, P09011. | 2.3 | 74 |
| 52 | Entropy of Hidden Markov Processes via Cycle Expansion. <i>Journal of Statistical Physics</i> , 2008, 133, 535-564. | 1.2 | 6 |
| 53 | Relating the thermodynamic arrow of time to the causal arrow. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2008, 2008, P04001. | 2.3 | 2 |
| 54 | Employing feedback in adiabatic quantum dynamics. <i>Europhysics Letters</i> , 2008, 84, 40007. | 2.0 | 5 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | Work extremum principle: Structure and function of quantum heat engines. <i>Physical Review E</i> , 2008, 77, 041118. | 2.1 | 122 |
| 56 | Quantum-state tomography using a single apparatus. <i>Physical Review A</i> , 2008, 77, . | 2.5 | 6 |
| 57 | Minimal-work principle and its limits for classical systems. <i>Physical Review E</i> , 2007, 75, 051124. | 2.1 | 20 |
| 58 | THE QUANTUM MEASUREMENT PROCESS: LESSONS FROM AN EXACTLY SOLVABLE MODEL. , 2007, , . | | 2 |
| 59 | Explanation of the Gibbs paradox within the framework of quantum thermodynamics. <i>Physical Review E</i> , 2006, 73, 066119. | 2.1 | 21 |
| 60 | Phase Transitions and Quantum Measurements. <i>AIP Conference Proceedings</i> , 2006, , . | 0.4 | 3 |
| 61 | Statistical networks emerging from link-node interactions. <i>Europhysics Letters</i> , 2006, 75, 908-914. | 2.0 | 11 |
| 62 | Adhesion-Induced DNA Naturation. <i>Physical Review Letters</i> , 2006, 96, 098302. | 7.8 | 11 |
| 63 | Anomalous Latent Heat in Nonequilibrium Phase Transitions. <i>Physical Review Letters</i> , 2006, 96, 065701. | 7.8 | 15 |
| 64 | Adiabatic processes need not correspond to optimal work. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 29, 74-81. | 2.7 | 2 |
| 65 | Dynamics of a quantum measurement. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 29, 261-271. | 2.7 | 7 |
| 66 | Bath-Assisted Cooling of Spins. <i>Physical Review Letters</i> , 2004, 93, 260404. | 7.8 | 19 |
| 67 | Maximal work extraction from finite quantum systems. <i>Europhysics Letters</i> , 2004, 67, 565-571. | 2.0 | 301 |
| 68 | Quantum thermodynamics: Thermodynamics at the nanoscale. <i>Journal of Modern Optics</i> , 2004, 51, 2703-2711. | 1.3 | 35 |
| 69 | Determining a Quantum State by Means of a Single Apparatus. <i>Physical Review Letters</i> , 2004, 92, 120402. | 7.8 | 81 |
| 70 | Thomson's formulation of the second law for macroscopic and finite work sources. <i>Entropy</i> , 2004, 6, 30-37. | 2.2 | 4 |
| 71 | Curie-Weiss model of the quantum measurement process. <i>Europhysics Letters</i> , 2003, 61, 452-458. | 2.0 | 49 |
| 72 | Testing the violation of the Clausius inequality in nanoscale electric circuits. <i>Physical Review B</i> , 2002, 66, . | 3.2 | 52 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Thomson's formulation of the second law: an exact theorem and limits of its validity. AIP Conference Proceedings, 2002, , . | 0.4 | 2 |
| 74 | Unmasking Maxwell's Demon. AIP Conference Proceedings, 2002, , . | 0.4 | 0 |
| 75 | Quantum Brownian motion and its conflict with the second law. AIP Conference Proceedings, 2002, , . | 0.4 | 1 |
| 76 | Bath generated work extraction in two-level systems. AIP Conference Proceedings, 2002, , . | 0.4 | 0 |
| 77 | Broadcast of classical information through a quantum channel. Europhysics Letters, 2000, 50, 718-723. | 2.0 | 0 |
| 78 | Steady adiabatic state: Its thermodynamics, entropy production, energy dissipation, and violation of Onsager relations. Physical Review E, 2000, 62, 845-850. | 2.1 | 42 |
| 79 | Optimizing the Classical Heat Engine. Physical Review Letters, 2000, 85, 232-235. | 7.8 | 12 |
| 80 | Extraction of Work from a Single Thermal Bath in the Quantum Regime. Physical Review Letters, 2000, 85, 1799-1802. | 7.8 | 151 |
| 81 | Strengthened Lindblad inequality: Applications in nonequilibrium thermodynamics and quantum information theory. Physical Review E, 1998, 58, 1148-1151. | 2.1 | 3 |
| 82 | Spin-glass model with partially annealed asymmetric bonds. Physical Review E, 1998, 58, R5201-R5204. | 2.1 | 1 |