

Tommaso Toffoli

List of Publications by Year in descending order

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Version: 2024-02-01

38
papers

4,485
citations

567281

15
h-index

526287

27
g-index

39
all docs

39
docs citations

39
times ranked

2151
citing authors

#	ARTICLE	IF	CITATIONS
1	Waiting for the rapture: What can we do with computers to (hopefully) witness the emergence of life?. <i>Natural Computing</i> , 2019, 18, 489-512.	3.0	0
2	Entropy? Honest!. <i>Entropy</i> , 2016, 18, 247.	2.2	7
3	What Automata Can Provide a Medium for Life?. <i>Lecture Notes in Computer Science</i> , 2016, , 10-25.	1.3	0
4	A Nanomechanical Fredkin Gate. <i>Nano Letters</i> , 2014, 14, 89-93.	9.1	78
5	Work recoverable from two-particle information. , 2012, , .		0
6	Conserved quantities in discrete dynamics: what can be recovered from Noether's theorem, how, and why?. <i>Natural Computing</i> , 2012, 11, 565-577.	3.0	2
7	Heat-to-Work Conversion by Exploiting Full or Partial Correlations of Quantum Particles. <i>International Journal of Theoretical Physics</i> , 2011, 50, 3844-3851.	1.2	3
8	Work recoverable from two-particle information. , 2011, , .		0
9	Can Anything from Noether's Theorem Be Salvaged for Discrete Dynamical Systems?. <i>Lecture Notes in Computer Science</i> , 2011, , 77-88.	1.3	0
10	Probability is a Lot of Logic at Once: If You Don't Know Which One to Pick, Take 'em All. , 2011, , 7-32.		0
11	From Such Simple a Beginning: The Momentous Consequences of Physics' Microscopic Reversibility for Communication and Computation and Almost Anything Else. <i>Electronic Notes in Theoretical Computer Science</i> , 2010, 253, 3-16.	0.9	0
12	Fundamental Limit on the Rate of Quantum Dynamics: The Unified Bound Is Tight. <i>Physical Review Letters</i> , 2009, 103, 160502.	7.8	220
13	When and how can a cellular automaton be rewritten as a lattice gas?. <i>Theoretical Computer Science</i> , 2008, 403, 71-88.	0.9	11
14	Thermodynamic Cost of Reversible Computing. <i>Physical Review Letters</i> , 2007, 99, 110502.	7.8	8
15	Thermodynamic Cost of Reversible Computing. , 2006, , .		2
16	Information and Distinguishability of Ensembles of Identical Quantum States. <i>International Journal of Theoretical Physics</i> , 2005, 44, 219-228.	1.2	2
17	Maximum Speed of Quantum Gate Operation. <i>International Journal of Theoretical Physics</i> , 2005, 44, 965-970.	1.2	12
18	Information Between Quantum Systems via POVMs. <i>International Journal of Theoretical Physics</i> , 2005, 44, 1989-1994.	1.2	0

#	ARTICLE	IF	CITATIONS
19	Specific ergodicity. , 2005, , .		2
20	Mutual Information in Quantum Systems. AIP Conference Proceedings, 2004, , .	0.4	0
21	How to turn a second-order cellular automaton into a lattice gas: a new inversion scheme. Theoretical Computer Science, 2004, 325, 329-344.	0.9	15
22	What Is the Lagrangian Counting?. International Journal of Theoretical Physics, 2003, 42, 363-381.	1.2	6
23	A Digital Perspective and the Quest for Substrate-Universal Behaviors. International Journal of Theoretical Physics, 2003, 42, 147-151.	1.2	3
24	Programmable matter methods. Future Generation Computer Systems, 1999, 16, 187-201.	7.5	19
25	Quo vadimus? â€” Much hard work is still needed. Physica D: Nonlinear Phenomena, 1998, 120, 1-11.	2.8	11
26	Potential for computation in micromagnetics via topological conservation laws. Physica D: Nonlinear Phenomena, 1998, 120, 139-161.	2.8	20
27	Almost every unit matrix is a ULU. Linear Algebra and Its Applications, 1997, 259, 31-38.	0.9	12
28	Three-Dimensional Rotations by Three Shears. Graphical Models, 1997, 59, 89-95.	1.3	31
29	Programmable matter: Concepts and realization. Physica D: Nonlinear Phenomena, 1991, 47, 263-272.	2.8	141
30	Invertible cellular automata: A review. Physica D: Nonlinear Phenomena, 1990, 45, 229-253.	2.8	287
31	Information transport obeying the continuity equation. IBM Journal of Research and Development, 1988, 32, 29-36.	3.1	9
32	Cellular-Automata Supercomputers for Fluid-Dynamics Modeling. Physical Review Letters, 1986, 56, 1694-1696.	7.8	115
33	Cellular automata as an alternative to (rather than an approximation of) differential equations in modeling physics. Physica D: Nonlinear Phenomena, 1984, 10, 117-127.	2.8	329
34	CAM: A high-performance cellular-automaton machine. Physica D: Nonlinear Phenomena, 1984, 10, 195-204.	2.8	86
35	Physics and computation. International Journal of Theoretical Physics, 1982, 21, 165-175.	1.2	71
36	Conservative logic. International Journal of Theoretical Physics, 1982, 21, 219-253.	1.2	1,722

#	ARTICLE	IF	CITATIONS
37	Bicontinuous extensions of invertible combinatorial functions. <i>Mathematical Systems Theory</i> , 1981, 14, 13-23.	0.5	92
38	Computation and construction universality of reversible cellular automata. <i>Journal of Computer and System Sciences</i> , 1977, 15, 213-231.	1.2	164