Piergiulio Tempesta

List of Publications by Year
in descending order

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55	976	430874	454955
papers	citations	18 h-index	30 g-index

58	58	58	357
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exact solvability of superintegrable systems. Journal of Mathematical Physics, 2001, 42, 4248-4257.	1.1	118
2	Group entropies, correlation laws, and zeta functions. Physical Review E, 2011, 84, 021121.	2.1	86
3	Reduction of superintegrable systems: The anisotropic harmonic oscillator. Physical Review E, 2008, 78, 046608.	2.1	61
4	Superintegrable systems in quantum mechanics and classical Lie theory. Journal of Mathematical Physics, 2001, 42, 659.	1.1	46
5	Umbral calculus, difference equations and the discrete SchrÃ¶dinger equation. Journal of Mathematical Physics, 2004, 45, 4077-4105.	1.1	46
6	A Foundational Approach to the Lie Theory for Fractional Order Partial Differential Equations. Fractional Calculus and Applied Analysis, 2017, 20, 212-231.	2.2	41
7	On Appell sequences of polynomials of Bernoulli and Euler type. Journal of Mathematical Analysis and Applications, 2008, 341, 1295-1310.	1.0	34
8	Beyond the Shannonâ€“Khinchin formulation: The composability axiom and the universal-group entropy. Annals of Physics, 2016, 365, 180-197.	2.8	32
9	Formal groups, Bernoulli-type polynomials and L-series. Comptes Rendus Mathematique, 2007, 345, 303-306.	0.3	29
10	Finding frequent items in parallel. Concurrency Computation Practice and Experience, 2011, 23, 1774-1788.	2.2	28
11	Symmetry reduction and superintegrable Hamiltonian systems. Journal of Physics: Conference Series, 2009, 175, 012013.	0.4	27
12	Uniqueness and characterization theorems for generalized entropies. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 123101.	2.3	26
13	Vortices and invariant surfaces generated by symmetries for the 3D Navierâ€“Stokes equations. Physica A: Statistical Mechanics and Its Applications, 2000, 286, 79-108.	2.6	24
14	A parallel space saving algorithm for frequent items and the Hurwitz zeta distribution. Information Sciences, 2016, 329, 1-19.	6.9	23
15	Statistical mechanics of exploding phase spaces: ontic open systems. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 375002.	2.1	23
16	On the Relation between Lie Symmetries and Prolongation Structures of Nonlinear Field Equations: Non-Local Symmetries. Progress of Theoretical Physics, 2001, 105, 77-97.	2.0	22
17	Formal groups and Z -entropies. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160143.	2.1	22
18	Generalized isotropic Lipkinâ€“Meshkovâ€“Glick models: ground state entanglement and quantum entropies. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 033114.	2.3	20

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19	Group Entropies: From Phase Space Geometry to Entropy Functionals via Group Theory. Entropy, 2018, 20, 804.	2.2	18
20	Weak transversality and partially invariant solutions. Journal of Mathematical Physics, 2003, 44, 2704.	1.1	17
21	Lorentz and Galilei invariance on lattices. Physical Review D, 2004, 69, .	4.7	17
22	A theorem on the existence of symmetries of fractional PDEs. Comptes Rendus Mathematique, 2014, 352, 219-222.	0.3	17
23	A new entropy based on a group-theoretical structure. Annals of Physics, 2016, 366, 22-31.	2.8	13
24	A generalized permutation entropy for noisy dynamics and random processes. Chaos, 2021, 31, 013115.	2.5	13
25	Thermostatistics in the neighbourhood of the Ï€-mode solution for the Fermiâ€“Pastaâ€“Ulam Î² system: from weak to strong chaos. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P04021.	2.3	12
26	A new class of entropic information measures, formal group theory and information geometry. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180633.	2.1	12
27	Universality Classes and Information-Theoretic Measures of Complexity via Group Entropies. Scientific Reports, 2020, 10, 5952.	3.3	11
28	A group analysis of the 2D Navierâ€“Stokesâ€“Fourier equations. Physica A: Statistical Mechanics and Its Applications, 2001, 293, 421-434.	2.6	10
29	A theorem on the existence of trace-form generalized entropies. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150165.	2.1	10
30	Complexity-based permutation entropies: From deterministic time series to white noise. Communications in Nonlinear Science and Numerical Simulation, 2022, 105, 106077.	3.3	10
31	Non-Maxwellian behavior and quasistationary regimes near the modal solutions of the Fermi-Pasta-Ulamî²system. Physical Review E, 2012, 85, 031149.	2.1	9
32	The Lazard formal group, universal congruences and special values of zeta functions. Transactions of the American Mathematical Society, 2015, 367, 7015-7028.	0.9	9
33	Groups, information theory, and Einstein's likelihood principle. Physical Review E, 2016, 93, 040101.	2.1	9
34	Generalized Lenard chains, separation of variables, and superintegrability. Physical Review E, 2012, 85, 046602.	2.1	8
35	On the robustness of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si38.gif" display="inline" overflow="scroll"><mml:mi>q</mml:mi></mml:math>-Gaussian family. Annals of Physics, 2015, 363, 316-336.	2.8	8
36	Singularity confinement for matrix discrete PainlevÃ© equations. Nonlinearity, 2014, 27, 2321-2335.	1.4	7

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37	Multivariate group entropies, super-exponentially growing complex systems, and functional equations. Chaos, 2020, 30, 123119.	2.5	7
38	Quantum models related to fouled Hamiltonians of the harmonic oscillator. Journal of Mathematical Physics, 2002, 43, 3538-3553.	1.1	6
39	Haantjes algebras and diagonalization. Journal of Geometry and Physics, 2021, 160, 103968.	1.4	6
40	Recursion operators, higher-order symmetries and superintegrability in quantum mechanics. European Physical Journal D, 2001, 51, 392-399.	0.4	4
41	Hyperfunctions, formal groups and generalized Lipschitz summation formulas. Nonlinear Analysis: Theory, Methods & Applications, 2012, 75, 1768-1777.	1.1	4
42	Haantjes algebras of classical integrable systems. Annali Di Matematica Pura Ed Applicata, 2022, 201, 57-90.	1.0	4
43	Higher Haantjes Brackets and Integrability. Communications in Mathematical Physics, 0, , 1.	2.2	4
44	Temperature behaviour of vortices of a 3D thermoconducting viscous fluid. Physica A: Statistical Mechanics and Its Applications, 2002, 305, 371-380.	2.6	3
45	Discretization of nonlinear evolution equations over associative function algebras. Nonlinear Analysis: Theory, Methods & Applications, 2010, 72, 3237-3246.	1.1	3
46	On the high energy stability of the nonlinear modal solutions for the Fermiâ€“Pastaâ€“Ulam Î² system. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P03003.	2.3	3
47	Integrable maps from Galois differential algebras, Borel transforms and number sequences. Journal of Differential Equations, 2013, 255, 2981-2995.	2.2	3
48	A non-Boltzmannian behavior of the energy distribution for quasi-stationary regimes of the Fermiâ€“Pastaâ€“Ulam system. Annals of Physics, 2013, 333, 12-18.	2.8	3
49	Classical multiseparable Hamiltonian systems, superintegrability and Haantjes geometry. Communications in Nonlinear Science and Numerical Simulation, 2022, 104, 106021.	3.3	3
50	Bipartite and directed scale-free complex networks arising from zeta functions. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 2493-2504.	3.3	2
51	Lie symmetries and superintegrability in quantum mechanics. Physics of Atomic Nuclei, 2002, 65, 1144-1148.	0.4	1
52	Multiple-scale analysis of dynamical systems on the lattice. Journal of Mathematical Analysis and Applications, 2011, 376, 247-258.	1.0	1
53	New computable entanglement monotones from formal group theory. Quantum Information Processing, 2021, 20, 1.	2.2	1
54	Lie Symmetries and Weak Transversality. Theoretical and Mathematical Physics(Russian Federation), 2003, 137, 1609-1621.	0.9	0

#	Article	IF	Citations
55	From symmetries to number theory. Physics of Atomic Nuclei, 2009, 72, 866-874.	0.4	0