

Laurent Nottale

List of Publications by Year in descending order

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29
papers

771
citations

623734

14
h-index

552781

26
g-index

31
all docs

31
docs citations

31
times ranked

261
citing authors

#	ARTICLE	IF	CITATIONS
1	FRACTALS AND THE QUANTUM THEORY OF SPACETIME. International Journal of Modern Physics A, 1989, 04, 5047-5117.	1.5	116
2	THE THEORY OF SCALE RELATIVITY. International Journal of Modern Physics A, 1992, 07, 4899-4936.	1.5	88
3	Scale relativity theory and integrative systems biology: 1. Progress in Biophysics and Molecular Biology, 2008, 97, 79-114.	2.9	75
4	Scale relativity, fractal space-time and quantum mechanics. Chaos, Solitons and Fractals, 1994, 4, 361-388.	5.1	63
5	Scale relativity theory and integrative systems biology: 2 Macroscopic quantum-type mechanics. Progress in Biophysics and Molecular Biology, 2008, 97, 115-157.	2.9	56
6	Quantum-classical transition in scale relativity. Journal of Physics A, 2004, 37, 931-955.	1.6	46
7	Scale Relativity and Fractal Space-Time: Theory and Applications. Foundations of Science, 2010, 15, 101-152.	0.7	37
8	Derivation of the postulates of quantum mechanics from the first principles of scale relativity. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 14471-14498.	2.1	35
9	Non-Abelian gauge field theory in scale relativity. Journal of Mathematical Physics, 2006, 47, 032303.	1.1	30
10	Scale-relativistic cosmology. Chaos, Solitons and Fractals, 2003, 16, 539-564.	5.1	25
11	Generalized quantum potentials. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 275306.	2.1	25
12	The Pauli equation in scale relativity. Journal of Physics A, 2006, 39, 12565-12585.	1.6	18
13	Scale relativity: From quantum mechanics to chaotic dynamics. Chaos, Solitons and Fractals, 1995, 6, 399-410.	5.1	17
14	Scale relativity and gauge invariance. Chaos, Solitons and Fractals, 2001, 12, 1577-1583.	5.1	17
15	The Theory of Scale Relativity: Non-Differentiable Geometry and Fractal Space-Time. AIP Conference Proceedings, 2004, , .	0.4	15
16	Scale Relativity. , 1997, , 249-261.		13
17	On the Fractal Structure of Evolutionary Trees. , 2002, , 247-258.		11
18	Progress in integrative systems biology, physiology and medicine: towards a scale-relative biology. European Physical Journal A, 2020, 56, 1.	2.5	11

#	ARTICLE	IF	CITATIONS
19	Lois d'Échelle et transitions fractal-non fractal en géographie. Espace Geographique, 2010, Vol. 39, 97-112.	0.2	11
20	The physical principles underpinning self-organization in plants. Progress in Biophysics and Molecular Biology, 2017, 123, 48-73.	2.9	10
21	Relativité d'Échelle et morphogénèse. Revue De Synthèse / Centre International De Synthèse, 2001, 122, 93-116.	0.0	9
22	Macroscopic Quantum-Type Potentials in Theoretical Systems Biology. Cells, 2014, 3, 1-35.	4.1	7
23	The origins of macroscopic quantum coherence in high temperature superconductivity. Physica C: Superconductivity and Its Applications, 2015, 515, 15-30.	1.2	5
24	New insights into the physical processes that underpin cell division and the emergence of different cellular and multicellular structures. Progress in Biophysics and Molecular Biology, 2020, 150, 13-42.	2.9	4
25	Multiscale Integration in Scale Relativity Theory. Foundations of Science, 2011, 16, 307-309.	0.7	2
26	Turbulence and scale relativity. Physics of Fluids, 2019, 31, .	4.0	2
27	Multiscalar Structures in Geography: Contributions of Scale Relativity. Cartographica, 2020, 55, 99-123.	0.4	2
28	Fractals in the Quantum Theory of Spacetime. , 2012, , 571-590.		2
29	Réponse au commentaire de Michel Morange sur l'article d'Ivan Brissaud. Histoire De La Recherche Contemporaine, 2015, , 83-87.	0.1	0