

Alain Arneodo

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4162640/publications.pdf>

Version: 2024-02-01

270
papers

13,724
citations

18482

62
h-index

27406

106
g-index

278
all docs

278
docs citations

278
times ranked

6689
citing authors

#	ARTICLE	IF	CITATIONS
1	Wavelets and multifractal formalism for singular signals: Application to turbulence data. <i>Physical Review Letters</i> , 1991, 67, 3515-3518.	7.8	686
2	THE MULTIFRACTAL FORMALISM REVISITED WITH WAVELETS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 1994, 04, 245-302.	1.7	508
3	Multifractal formalism for fractal signals: The structure-function approach versus the wavelet-transform modulus-maxima method. <i>Physical Review E</i> , 1993, 47, 875-884.	2.1	472
4	The thermodynamics of fractals revisited with wavelets. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1995, 213, 232-275.	2.6	422
5	Characterizing Long-Range Correlations in DNA Sequences from Wavelet Analysis. <i>Physical Review Letters</i> , 1995, 74, 3293-3296.	7.8	341
6	Singularity spectrum of fractal signals from wavelet analysis: Exact results. <i>Journal of Statistical Physics</i> , 1993, 70, 635-674.	1.2	321
7	Wavelet Transform of Multifractals. <i>Physical Review Letters</i> , 1988, 61, 2281-2284.	7.8	271
8	Possible new strange attractors with spiral structure. <i>Communications in Mathematical Physics</i> , 1981, 79, 573-579.	2.2	259
9	Structure functions in turbulence, in various flow configurations, at Reynolds number between 30 and 5000, using extended self-similarity. <i>Europhysics Letters</i> , 1996, 34, 411-416.	2.0	213
10	Wavelet analysis of turbulence reveals the multifractal nature of the Richardson cascade. <i>Nature</i> , 1989, 338, 51-53.	27.8	208
11	â€œDirectâ€ causal cascade in the stock market. <i>European Physical Journal B</i> , 1998, 2, 277-282.	1.5	205
12	Impact of replication timing on non-CpG and CpG substitution rates in mammalian genomes. <i>Genome Research</i> , 2010, 20, 447-457.	5.5	187
13	<i>in vivo</i> analysis of local wall stiffness at the shoot apical meristem in <i>Arabidopsis</i> using atomic force microscopy. <i>Plant Journal</i> , 2011, 67, 1116-1123.	5.7	186
14	Self-Similarity of Diffusion-Limited Aggregates and Electrodeposition Clusters. <i>Physical Review Letters</i> , 1988, 61, 2558-2561.	7.8	171
15	Asymptotic chaos. <i>Physica D: Nonlinear Phenomena</i> , 1985, 14, 327-347.	2.8	164
16	A wavelet-based method for multifractal image analysis. I. Methodology and test applications on isotropic and anisotropic random rough surfaces. <i>European Physical Journal B</i> , 2000, 15, 567-600.	1.5	159
17	Random cascades on wavelet dyadic trees. <i>Journal of Mathematical Physics</i> , 1998, 39, 4142-4164.	1.1	153
18	Human gene organization driven by the coordination of replication and transcription. <i>Genome Research</i> , 2007, 17, 1278-1285.	5.5	147

#	ARTICLE	IF	CITATIONS
19	Universal Intermittent Properties of Particle Trajectories in Highly Turbulent Flows. <i>Physical Review Letters</i> , 2008, 100, 254504.	7.8	145
20	Occurrence of strange attractors in three-dimensional Volterra equations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1980, 79, 259-263.	2.1	141
21	Wavelet based fractal analysis of DNA sequences. <i>Physica D: Nonlinear Phenomena</i> , 1996, 96, 291-320.	2.8	138
22	Oscillators with chaotic behavior: An illustration of a theorem by Shil'nikov. <i>Journal of Statistical Physics</i> , 1982, 27, 171-182.	1.2	137
23	Replication-associated strand asymmetries in mammalian genomes: Toward detection of replication origins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 9836-9841.	7.1	133
24	A possible new mechanism for the onset of turbulence. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1981, 81, 197-201.	2.1	128
25	Long-Range Correlations in Genomic DNA: A Signature of the Nucleosomal Structure. <i>Physical Review Letters</i> , 2001, 86, 2471-2474.	7.8	127
26	From quasiperiodicity to chaos in the Belousov-Zhabotinskii reaction. I. Experiment. <i>Journal of Chemical Physics</i> , 1987, 86, 3325-3338.	3.0	124
27	Evidence for Sequential and Increasing Activation of Replication Origins along Replication Timing Gradients in the Human Genome. <i>PLoS Computational Biology</i> , 2011, 7, e1002322.	3.2	124
28	The Spatiotemporal Program of DNA Replication Is Associated with Specific Combinations of Chromatin Marks in Human Cells. <i>PLoS Genetics</i> , 2014, 10, e1004282.	3.5	123
29	Revisiting multifractality of high-resolution temporal rainfall using a wavelet-based formalism. <i>Water Resources Research</i> , 2006, 42, .	4.2	121
30	Multi-scale coding of genomic information: From DNA sequence to genome structure and function. <i>Physics Reports</i> , 2011, 498, 45-188.	25.6	108
31	Transition to stochasticity for a class of forced oscillators. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1979, 72, 268-270.	2.1	107
32	Long Time Correlations in Lagrangian Dynamics: A Key to Intermittency in Turbulence. <i>Physical Review Letters</i> , 2002, 89, 254502.	7.8	105
33	Long-range Correlations between DNA Bending Sites: Relation to the Structure and Dynamics of Nucleosomes. <i>Journal of Molecular Biology</i> , 2002, 316, 903-918.	4.2	99
34	Multifractal returns and hierarchical portfolio theory. <i>Quantitative Finance</i> , 2001, 1, 131-148.	1.7	96
35	Cascade of period doublings of tori. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1983, 94, 1-6.	2.1	95
36	Uncovering the analytical Saffman-Taylor finger in unstable viscous fingering and diffusion-limited aggregation. <i>Physical Review Letters</i> , 1989, 63, 984-987.	7.8	95

#	ARTICLE	IF	CITATIONS
37	Chromosome territories have a highly nonspherical morphology and nonrandom positioning. <i>Chromosome Research</i> , 2007, 15, 899-916.	2.2	95
38	Chemical chaos: from hints to confirmation. <i>Accounts of Chemical Research</i> , 1987, 20, 436-442.	15.6	91
39	Wavelet transform of fractal aggregates. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1989, 135, 327-336.	2.1	91
40	Oscillating Viscosity in a Lyotropic Lamellar Phase under Shear Flow. <i>Physical Review Letters</i> , 2001, 86, 1374-1377.	7.8	90
41	Wavelet-based estimators of scaling behavior. <i>IEEE Transactions on Information Theory</i> , 2002, 48, 2938-2954.	2.4	90
42	Experimental evidence for homoclinic chaos in the Belousov-Zhabotinskii reaction. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1987, 120, 269-275.	2.1	89
43	From quasiperiodicity to chaos in the Belousov-Zhabotinskii reaction. II. Modeling and theory. <i>Journal of Chemical Physics</i> , 1987, 86, 3339-3356.	3.0	88
44	Intermittency of 1D velocity spatial profiles in turbulence: a magnitude cumulant analysis. <i>European Physical Journal B</i> , 2001, 23, 243-248.	1.5	86
45	Optical wavelet transform of fractal aggregates. <i>Physical Review Letters</i> , 1990, 64, 745-748.	7.8	85
46	What can we learn with wavelets about DNA sequences?. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 249, 439-448.	2.6	81
47	Lagrangian Velocity Statistics in Turbulent Flows: Effects of Dissipation. <i>Physical Review Letters</i> , 2003, 91, 214502.	7.8	81
48	Complex Fractal Dimensions Describe the Hierarchical Structure of Diffusion-Limited-Aggregate Clusters. <i>Physical Review Letters</i> , 1996, 76, 251-254.	7.8	79
49	Wavelet Based Multifractal Analysis of Rough Surfaces: Application to Cloud Models and Satellite Data. <i>Physical Review Letters</i> , 1997, 79, 75-78.	7.8	79
50	Morphological Analysis of H i Features. II. Wavelet-based Multifractal Formalism. <i>Astrophysical Journal, Supplement Series</i> , 2006, 165, 512-550.	7.7	77
51	A wavelet-based method for multifractal image analysis. III. Applications to high-resolution satellite images of cloud structure. <i>European Physical Journal B</i> , 2000, 15, 765-786.	1.5	76
52	3D chromatin conformation correlates with replication timing and is conserved in resting cells. <i>Nucleic Acids Research</i> , 2012, 40, 9470-9481.	14.5	76
53	WAVELET-BASED MULTIFRACTAL FORMALISM TO ASSIST IN DIAGNOSIS IN DIGITIZED MAMMOGRAMS. <i>Image Analysis and Stereology</i> , 2001, 20, 169.	0.9	76
54	The dynamics of triple convection. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1985, 31, 1-48.	1.2	74

#	ARTICLE	IF	CITATIONS
55	Wavelet analysis of the self-similarity of diffusion-limited aggregates and electrodeposition clusters. <i>Physical Review A</i> , 1990, 41, 5537-5560.	2.5	74
56	Transcription-coupled and splicing-coupled strand asymmetries in eukaryotic genomes. <i>Nucleic Acids Research</i> , 2004, 32, 4969-4978.	14.5	73
57	Statistical properties of fractal dendrites and anisotropic diffusion-limited aggregates. <i>Physical Review A</i> , 1990, 42, 3499-3503.	2.5	71
58	A wavelet-based method for multifractal image analysis. II. Applications to synthetic multifractal rough surfaces. <i>European Physical Journal B</i> , 2000, 15, 739-764.	1.5	71
59	Replication Fork Polarity Gradients Revealed by Megabase-Sized U-Shaped Replication Timing Domains in Human Cell Lines. <i>PLoS Computational Biology</i> , 2012, 8, e1002443.	3.2	70
60	Wavelet-based multifractal analysis of dynamic infrared thermograms to assist in early breast cancer diagnosis. <i>Frontiers in Physiology</i> , 2014, 5, 176.	2.8	68
61	Strange attractors in volterra equations for species in competition. <i>Journal of Mathematical Biology</i> , 1982, 14, 153-157.	1.9	66
62	Golden mean arithmetic in the fractal branching of diffusion-limited aggregates. <i>Physical Review Letters</i> , 1992, 68, 3456-3459.	7.8	66
63	Analysis of Random Cascades Using Space-Scale Correlation Functions. <i>Physical Review Letters</i> , 1998, 80, 708-711.	7.8	66
64	Replication-Associated Mutational Asymmetry in the Human Genome. <i>Molecular Biology and Evolution</i> , 2011, 28, 2327-2337.	8.9	66
65	Wavelet Based Multifractal Formalism: Applications to DNA Sequences, Satellite Images of the Cloud Structure, and Stock Market Data. , 2002, , 26-102.		65
66	Transcription-coupled TA and GC strand asymmetries in the human genome. <i>FEBS Letters</i> , 2003, 555, 579-582.	2.8	65
67	Three-Dimensional Wavelet-Based Multifractal Method: The Need for Revisiting the Multifractal Description of Turbulence Dissipation Data. <i>Physical Review Letters</i> , 2003, 91, 194501.	7.8	64
68	A novel strategy of transcription regulation by intragenic nucleosome ordering. <i>Genome Research</i> , 2010, 20, 59-67.	5.5	64
69	Unified multifractal description of velocity increments statistics in turbulence: Intermittency and skewness. <i>Physica D: Nonlinear Phenomena</i> , 2006, 218, 77-82.	2.8	62
70	Probing Persistence in DNA Curvature Properties with Atomic Force Microscopy. <i>Physical Review Letters</i> , 2007, 98, 178101.	7.8	61
71	Homoclinic chaos in chemical systems. <i>Physica D: Nonlinear Phenomena</i> , 1993, 62, 134-169.	2.8	60
72	Towards log-normal statistics in high Reynolds number turbulence. <i>European Physical Journal B</i> , 1998, 1, 129-140.	1.5	60

#	ARTICLE	IF	CITATIONS
73	A wavelet-based method for multifractal image analysis: From theoretical concepts to experimental applications. <i>Advances in Imaging and Electron Physics</i> , 2003, 126, 1-92.	0.2	60
74	Experiments Confirm the Influence of Genome Long-Range Correlations on Nucleosome Positioning. <i>Physical Review Letters</i> , 2007, 99, 218103.	7.8	60
75	Fractal dimensions and $\mathcal{E}'(\pm)$ spectrum of the Hénon attractor. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1987, 124, 426-432.	2.1	58
76	Analysis of fine-scale mammalian evolutionary breakpoints provides new insight into their relation to genome organisation. <i>BMC Genomics</i> , 2009, 10, 335.	2.8	58
77	Singularity spectrum of multifractal functions involving oscillating singularities. <i>Journal of Fourier Analysis and Applications</i> , 1998, 4, 159-174.	1.0	57
78	Generalizing the Wavelet-Based Multifractal Formalism to Random Vector Fields: Application to Three-Dimensional Turbulence Velocity and Vorticity Data. <i>Physical Review Letters</i> , 2004, 93, 044501.	7.8	57
79	Thermodynamics of Intragenic Nucleosome Ordering. <i>Physical Review Letters</i> , 2009, 103, 188103.	7.8	57
80	Functional Coupling between HIV-1 Integrase and the SWI/SNF Chromatin Remodeling Complex for Efficient in vitro Integration into Stable Nucleosomes. <i>PLoS Pathogens</i> , 2011, 7, e1001280.	4.7	57
81	Structural Analysis of Electroless Deposits in the Diffusion-Limited Regime. <i>Physical Review Letters</i> , 1994, 73, 2998-3001.	7.8	54
82	Oscillating singularities on cantor sets: A grand-canonical multifractal formalism. <i>Journal of Statistical Physics</i> , 1997, 87, 179-209.	1.2	54
83	Nucleosome positioning by genomic excluding-energy barriers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 22257-22262.	7.1	54
84	Human Genome Replication Proceeds through Four Chromatin States. <i>PLoS Computational Biology</i> , 2013, 9, e1003233.	3.2	54
85	Oscillatory instability induced by mass interchange between two coupled steady-state reactors. <i>The Journal of Physical Chemistry</i> , 1987, 91, 5843-5845.	2.9	53
86	Type-II intermittency in a periodically driven nonlinear oscillator. <i>Physical Review A</i> , 1986, 34, 726-729.	2.5	52
87	Experimental Analysis of Self-Similarity and Random Cascade Processes: Application to Fully Developed Turbulence Data. <i>Journal De Physique II</i> , 1997, 7, 363-370.	0.9	52
88	From DNA Sequence Analysis to Modeling Replication in the Human Genome. <i>Physical Review Letters</i> , 2005, 94, 248103.	7.8	52
89	Open chromatin encoded in DNA sequence is the signature of "master" replication origins in human cells. <i>Nucleic Acids Research</i> , 2009, 37, 6064-6075.	14.5	52
90	Revealing Long-Range Interconnected Hubs in Human Chromatin Interaction Data Using Graph Theory. <i>Physical Review Letters</i> , 2013, 111, 118102.	7.8	52

#	ARTICLE	IF	CITATIONS
91	Intermittency, Log-Normal Statistics, and Multifractal Cascade Process in High-Resolution Satellite Images of Cloud Structure. <i>Physical Review Letters</i> , 1999, 83, 1255-1258.	7.8	50
92	Multiscale analysis of genome-wide replication timing profiles using a wavelet-based signal-processing algorithm. <i>Nature Protocols</i> , 2013, 8, 98-110.	12.0	50
93	BEYOND CLASSICAL MULTIFRACTAL ANALYSIS USING WAVELETS: UNCOVERING A MULTIPLICATIVE PROCESS HIDDEN IN THE GEOMETRICAL COMPLEXITY OF DIFFUSION LIMITED AGGREGATES. <i>Fractals</i> , 1993, 01, 629-649.	3.7	48
94	Chromosome neighborhood composition determines translocation outcomes after exposure to high-dose radiation in primary cells. <i>Chromosome Research</i> , 2007, 15, 1061-1073.	2.2	48
95	Wavelet analysis of fully developed turbulence data and measurement of scaling exponents. <i>Fluid Mechanics and Its Applications</i> , 1991, , 203-215.	0.2	45
96	Experimental evidence for homoclinic chaos in an electrochemical growth process. <i>Physica D: Nonlinear Phenomena</i> , 1993, 62, 170-185.	2.8	43
97	Revealing a lognormal cascading process in turbulent velocity statistics with wavelet analysis. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1999, 357, 2415-2438.	3.4	43
98	Thermodynamics of DNA Loops with Long-Range Correlated Structural Disorder. <i>Physical Review Letters</i> , 2005, 95, 068101.	7.8	43
99	Anisotropic Laplacian growths: From diffusion-limited aggregates to dendritic fractals. <i>Physical Review Letters</i> , 1991, 66, 2332-2335.	7.8	42
100	Oscillating Singularities in Locally Self-Similar Functions. <i>Physical Review Letters</i> , 1995, 74, 4823-4826.	7.8	42
101	A phenomenological theory of Eulerian and Lagrangian velocity fluctuations in turbulent flows. <i>Comptes Rendus Physique</i> , 2012, 13, 899-928.	0.9	42
102	Transition to turbulence for doubly periodic flows. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1980, 77, 327-331.	2.1	41
103	Intermittency of Velocity Time Increments in Turbulence. <i>Physical Review Letters</i> , 2005, 95, 064501.	7.8	41
104	Cluster models against new and old experimental data on multiparticle production. <i>Nuclear Physics B</i> , 1976, 107, 262-284.	2.5	39
105	Thermodynamics of fractal signals based on wavelet analysis: application to fully developed turbulence data and DNA sequences. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 254, 24-45.	2.6	39
106	DNA Replication Timing Data Corroborate <i>In Silico</i> Human Replication Origin Predictions. <i>Physical Review Letters</i> , 2007, 99, 248102.	7.8	39
107	Wavelet-based multifractal analysis. <i>Scholarpedia Journal</i> , 2008, 3, 4103.	0.3	39
108	Title is missing!. <i>Journal of Statistical Physics</i> , 2003, 113, 701-717.	1.2	38

#	ARTICLE	IF	CITATIONS
109	Chaos in a finite macroscopic system. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1982, 92, 369-373.	2.1	37
110	Nucleotide composition effects on the long-range correlations in human genes. <i>European Physical Journal B</i> , 1998, 1, 259-263.	1.5	37
111	Bifractality of human DNA strand-asymmetry profiles results from transcription. <i>Physical Review E</i> , 2007, 75, 032902.	2.1	37
112	Low Frequency Rhythms in Human DNA Sequences: A Key to the Organization of Gene Location and Orientation?. <i>Physical Review Letters</i> , 2004, 93, 108101.	7.8	36
113	Revisiting the physical processes of vapodeposited thin gold films on chemically modified glass by atomic force and surface plasmon microscopies. <i>Surface Science</i> , 2009, 603, 3307-3320.	1.9	36
114	Detecting vorticity filaments using wavelet analysis: About the statistical contribution of vorticity filaments to intermittency in swirling turbulent flows. <i>European Physical Journal B</i> , 1999, 8, 301-322.	1.5	35
115	Scaling behavior of high resolution temporal rainfall: New insights from a wavelet-based cumulant analysis. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2006, 348, 335-345.	2.1	35
116	DNA structure, nucleosome placement and chromatin remodelling: a perspective. <i>Biochemical Society Transactions</i> , 2012, 40, 335-340.	3.4	35
117	On the existence of hysteresis in a transition to chaos after a single bifurcation. <i>Journal De Physique (Paris), Lettres</i> , 1980, 41, 243-246.	2.8	35
118	Crisis-induced intermittent bursting in reaction-diffusion chemical systems. <i>Physical Review Letters</i> , 1992, 68, 714-717.	7.8	34
119	Multifractal analysis of dynamic infrared imaging of breast cancer. <i>Europhysics Letters</i> , 2013, 104, 68001.	2.0	34
120	Effect of Genomic Long-Range Correlations on DNA Persistence Length: From Theory to Single Molecule Experiments. <i>Journal of Physical Chemistry B</i> , 2010, 114, 5125-5143.	2.6	33
121	Formation and positioning of nucleosomes: Effect of sequence-dependent long-range correlated structural disorder. <i>European Physical Journal E</i> , 2006, 19, 263-277.	1.6	32
122	From Simple Bacterial and Archaeal Replicons to Replication N/U-Domains. <i>Journal of Molecular Biology</i> , 2013, 425, 4673-4689.	4.2	32
123	Single Cell Wall Nonlinear Mechanics Revealed by a Multiscale Analysis of AFM Force-Indentation Curves. <i>Biophysical Journal</i> , 2015, 108, 2235-2248.	0.5	32
124	Wavelet-Based 3D Reconstruction of Microcalcification Clusters from Two Mammographic Views: New Evidence That Fractal Tumors Are Malignant and Euclidean Tumors Are Benign. <i>PLoS ONE</i> , 2014, 9, e107580.	2.5	31
125	Wavelet Analysis of DNA Bending Profiles reveals Structural Constraints on the Evolution of Genomic Sequences. <i>Journal of Biological Physics</i> , 2004, 30, 33-81.	1.5	30
126	Developmental and cancer-associated plasticity of DNA replication preferentially targets GC-poor, lowly expressed and late-replicating regions. <i>Nucleic Acids Research</i> , 2018, 46, 10157-10172.	14.5	30

#	ARTICLE	IF	CITATIONS
127	Crossover Effect in the $f(\pm)$ Spectrum for Quasiperiodic Trajectories at the Onset of Chaos. Physical Review Letters, 1987, 58, 2007-2010.	7.8	29
128	Evidence for inherent nonlinearity in temporal rainfall. Advances in Water Resources, 2009, 32, 41-48.	3.8	29
129	Evolutionary comparisons reveal a positional switch for spindle pole oscillations in <i>Caenorhabditis</i> embryos. Journal of Cell Biology, 2013, 201, 653-662.	5.2	29
130	Structural five-fold symmetry in the fractal morphology of diffusion-limited aggregates. Physica A: Statistical Mechanics and Its Applications, 1992, 188, 217-242.	2.6	28
131	Uncovering Fibonacci sequences in the fractal morphology of diffusion-limited aggregates. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 171, 31-36.	2.1	28
132	Estimating intermittency exponent in neutrally stratified atmospheric surface layer flows: A robust framework based on magnitude cumulant and surrogate analyses. Physics of Fluids, 2007, 19, .	4.0	28
133	Structural organization of human replication timing domains. FEBS Letters, 2015, 589, 2944-2957.	2.8	28
134	Time-lapse scanning surface plasmon microscopy of living adherent cells with a radially polarized beam. Applied Optics, 2016, 55, 1216.	2.1	28
135	Solving the Inverse Fractal Problem from Wavelet Analysis. Europhysics Letters, 1994, 25, 479-484.	2.0	27
136	CHARACTERIZING COMPLEXITY IN SOLAR MAGNETOGRAM DATA USING A WAVELET-BASED SEGMENTATION METHOD. Astrophysical Journal, 2010, 717, 995-1005.	4.5	27
137	Inferring Where and When Replication Initiates from Genome-Wide Replication Timing Data. Physical Review Letters, 2012, 108, 268101.	7.8	25
138	Diffraction phase microscopy: retrieving phase contours on living cells with a wavelet-based space-scale analysis. Journal of Biomedical Optics, 2014, 19, 036007.	2.6	25
139	Evidence of selection for an accessible nucleosomal array in human. BMC Genomics, 2016, 17, 526.	2.8	25
140	Mammographic evidence of microenvironment changes in tumorous breasts. Medical Physics, 2017, 44, 1324-1336.	3.0	25
141	A renormalization group with periodic behaviour. Physics Letters, Section A: General, Atomic and Solid State Physics, 1979, 70, 74-76.	2.1	24
142	Comment on "Self-similarity of diffusion-limited aggregates and electrodeposition clusters". Physical Review Letters, 1989, 63, 1322-1322.	7.8	24
143	Spatiotemporal patterns and diffusion-induced chaos in a chemical system with equal diffusion coefficients. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 143, 25-33.	2.1	24
144	Modeling reaction-diffusion pattern formation in the Couette flow reactor. Journal of Chemical Physics, 1991, 95, 323-350.	3.0	24

#	ARTICLE	IF	CITATIONS
145	On the observation of an uncompleted cascade in a Rayleigh-Bénard experiment. <i>Physica D: Nonlinear Phenomena</i> , 1983, 6, 385-392.	2.8	23
146	Automated Detection of Coronal Loops Using a Wavelet Transform Modulus Maxima Method. <i>Solar Physics</i> , 2010, 262, 387-397.	2.5	22
147	Wavelet-based method to disentangle transcription- and replication-associated strand asymmetries in mammalian genomes. <i>Applied and Computational Harmonic Analysis</i> , 2010, 28, 150-170.	2.2	22
148	Embryonic Stem Cell Specific α -Master Replication Origins at the Heart of the Loss of Pluripotency. <i>PLoS Computational Biology</i> , 2015, 11, e1003969.	3.2	22
149	Deciphering the internal complexity of living cells with quantitative phase microscopy: a multiscale approach. <i>Journal of Biomedical Optics</i> , 2015, 20, 096005.	2.6	22
150	Instabilities of front patterns in reaction-diffusion systems. <i>Physica D: Nonlinear Phenomena</i> , 1991, 49, 141-160.	2.8	21
151	Analyzing Chaotic Behavior in a Belousov-Zhabotinsky Reaction by Using a Global Vector Field Reconstruction. <i>Journal of Physical Chemistry A</i> , 1998, 102, 10265-10273.	2.5	21
152	Perinuclear distribution of heterochromatin in developing <i>C. elegans</i> embryos. <i>Chromosome Research</i> , 2010, 18, 873-885.	2.2	21
153	Wavelet Transform Analysis of Invariant Measures of Some Dynamical Systems. <i>Inverse Problems and Theoretical Imaging</i> , 1989, , 182-196.	0.2	21
154	SWDreader: A wavelet-based algorithm using spectral phase to characterize spike-wave morphological variation in genetic models of absence epilepsy. <i>Journal of Neuroscience Methods</i> , 2015, 242, 127-140.	2.5	20
155	Passive microrheology of soft materials with atomic force microscopy: A wavelet-based spectral analysis. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	20
156	Experimental evidence for deterministic chaos in electrochemical deposition. <i>Journal De Physique</i> , 1990, 51, 2477-2487.	1.8	20
157	Statistical analysis of off-lattice diffusion-limited aggregates in channel and sector geometries. <i>Physical Review E</i> , 1996, 53, 6200-6223.	2.1	19
158	Comparative Multifractal Analysis of Dynamic Infrared Thermograms and X-Ray Mammograms Enlightens Changes in the Environment of Malignant Tumors. <i>Frontiers in Physiology</i> , 2016, 7, 336.	2.8	18
159	A mechanism for a soft mode instability. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1980, 78, 11-14.	2.1	17
160	The periodic-chaotic sequences in chemical reactions: A scenario close to homoclinic conditions?. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1985, 109, 359-366.	2.1	17
161	Direct numerical simulations of a triple convection problem versus normal form predictions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1985, 109, 367-373.	2.1	16
162	Influence of the sequence on elastic properties of long DNA chains. <i>Physical Review E</i> , 2003, 67, 032901.	2.1	16

#	ARTICLE	IF	CITATIONS
163	A multifractal formalism for vector-valued random fields based on wavelet analysis: application to turbulent velocity and vorticity 3D numerical data. Stochastic Environmental Research and Risk Assessment, 2008, 22, 421-435.	4.0	16
164	Linking the DNA strand asymmetry to the spatio-temporal replication program. European Physical Journal E, 2012, 35, 92.	1.6	16
165	Fractal dimensions and homeomorphic conjugacies. Journal of Statistical Physics, 1988, 50, 995-1020.	1.2	15
166	Megabase Replication Domains Along the Human Genome: Relation to Chromatin Structure and Genome Organisation. Sub-Cellular Biochemistry, 2013, 61, 57-80.	2.4	15
167	Scaling for a Periodic Forcing of a Period-Doubling System. Physical Review Letters, 1984, 53, 1240-1243.	7.8	14
168	A three-dimensional dissipative map modeling type-II intermittency. Journal De Physique, 1988, 49, 767-775.	1.8	14
169	Spontaneous emergence of sequence-dependent rosettelike folding of chromatin fiber. Physical Review E, 2008, 77, 061923.	2.1	14
170	The eukaryotic bell-shaped temporal rate of DNA replication origin firing emanates from a balance between origin activation and passivation. ELife, 2018, 7, .	6.0	14
171	Linking the DNA strand asymmetry to the spatio-temporal replication program. European Physical Journal E, 2012, 35, 123.	1.6	13
172	Wavelet-based decomposition of high resolution surface plasmon microscopy V (Z) curves at visible and near infrared wavelengths. Optics Express, 2013, 21, 7456.	3.4	13
173	Revealing stiffening and brittling of chronic myelogenous leukemia hematopoietic primary cells through their temporal response to shear stress. Physical Biology, 2016, 13, 03LT01.	1.8	13
174	What semi-inclusive data say about clusters. Nuclear Physics B, 1976, 113, 156-172.	2.5	12
175	Influence of the genomic sequence on the primary structure of chromatin. Frontiers in Life Science: Frontiers of Interdisciplinary Research in the Life Sciences, 2011, 5, 29-68.	1.1	12
176	Gene organization inside replication domains in mammalian genomes. Comptes Rendus - Mecanique, 2012, 340, 745-757.	2.1	12
177	From the chromatin interaction network to the organization of the human genome into replication N/U-domains. New Journal of Physics, 2014, 16, 115014.	2.9	12
178	From scale invariance to deterministic chaos in DNA sequences: towards a deterministic description of gene organization in the human genome. Physica A: Statistical Mechanics and Its Applications, 2004, 342, 270-280.	2.6	11
179	Ubiquitous human "master" origins of replication are encoded in the DNA sequence via a local enrichment in nucleosome excluding energy barriers. Journal of Physics Condensed Matter, 2015, 27, 064102.	1.8	11
180	Combining multifractal analyses of digital mammograms and infrared thermograms to assist in early breast cancer diagnosis. AIP Conference Proceedings, 2016, , .	0.4	11

#	ARTICLE	IF	CITATIONS
181	Multi-scale structural community organisation of the human genome. BMC Bioinformatics, 2017, 18, 209.	2.6	11
182	Correlations between neutral and charged pions in multiparticle production. Nuclear Physics B, 1974, 77, 309-336.	2.5	10
183	Monte Carlo Random-Walk Experiments as a Test of Chaotic Orbits of Maps of the Interval. Physical Review Letters, 1984, 52, 1857-1860.	7.8	10
184	Prestressed cells are prone to cytoskeleton failures under localized shear strain: an experimental demonstration on muscle precursor cells. Scientific Reports, 2018, 8, 8602.	3.3	10
185	Topological horseshoe and numerically observed chaotic behaviour in the Henon mapping. Journal of Physics A, 1980, 13, L123-L127.	1.6	9
186	Transitions to Chaos in the Presence of an External Periodic Field: Cross-Over Effect in the Measure of Critical Exponents. Europhysics Letters, 1987, 3, 643-651.	2.0	9
187	Dynamical Characterization of Electroless Deposition in the Diffusion-Limited Regime. Fractals, 1997, 05, 75-86.	3.7	9
188	Guided wave microscopy: mastering the inverse problem. Optics Letters, 2013, 38, 4269.	3.3	9
189	Deciphering DNA replication dynamics in eukaryotic cell populations in relation with their averaged chromatin conformations. Scientific Reports, 2016, 6, 22469.	3.3	9
190	Multifractal returns and hierarchical portfolio theory. Quantitative Finance, 2001, 1, 131-148.	1.7	9
191	Fractal Dimensions and $f(\pm)$ Spectrum for Strange Attractors. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 1988, 68, 519-522.	1.6	8
192	Argoulet al.reply. Physical Review Letters, 1989, 63, 1323-1323.	7.8	8
193	Transformation en ondelettes et renormalisation. Lecture Notes in Mathematics, 1990, , 125-191.	0.2	8
194	Statistical mechanics of Laplacian fractals. Physical Review Letters, 1993, 71, 2425-2428.	7.8	8
195	Epigenetic regulation of the human genome: coherence between promoter activity and large-scale chromatin environment. Frontiers in Life Science: Frontiers of Interdisciplinary Research in the Life Sciences, 2013, 7, 44-62.	1.1	8
196	From elasticity to inelasticity in cancer cell mechanics: A loss of scale-invariance. AIP Conference Proceedings, 2016, , .	0.4	8
197	Evidence for DNA Sequence Encoding of an Accessible Nucleosomal Array across Vertebrates. Biophysical Journal, 2018, 114, 2308-2316.	0.5	8
198	Kinematical effects, neutral-cluster models and neutral- to charged-pion correlations in multiparticle production. Lettere Al Nuovo Cimento Rivista Internazionale Della SocietÀ Italiana Di Fisica, 1975, 12, 1-8.	0.4	7

#	ARTICLE	IF	CITATIONS
199	Sharkovskii's order for the appearance of superstable cycles in one-parameter families of simple real maps: An elementary proof. Communications on Pure and Applied Mathematics, 1984, 37, 13-17.	3.1	7
200	Lyapunov exponents and phase transitions in dynamical systems. Lecture Notes in Mathematics, 1986, , 338-360.	0.2	7
201	Mechanics of the IL2RA Gene Activation Revealed by Modeling and Atomic Force Microscopy. PLoS ONE, 2011, 6, e18811.	2.5	7
202	A minimal rupture cascade model for living cell plasticity. New Journal of Physics, 2018, 20, 053057.	2.9	7
203	Experimental evidence of a phase transition in the multifractal spectra of turbulent temperature fluctuations at a forest canopy top. Journal of Fluid Mechanics, 2020, 896, .	3.4	7
204	Scaling for a periodic forcing at the onset of intermittency. Journal De Physique (Paris), Lettres, 1985, 46, 901-907.	2.8	7
205	Quantum effects in photodetection processes. European Physical Journal A, 1974, 269, 205-213.	2.5	6
206	Charge dependent effects in azimuthal two-particle correlations and cluster production. Nuclear Physics B, 1975, 97, 51-60.	2.5	6
207	Optical wavelet transform and local scaling properties of fractals. Journal of Applied Crystallography, 1991, 24, 526-530.	4.5	6
208	Optical-diffraction measurement of fractal dimensions and $f(\pm)$ spectrum. Physical Review A, 1992, 45, 8961-8964.	2.5	6
209	Lagrangian intermittencies in dynamic and static turbulent velocity fields from direct numerical simulations. Journal of Turbulence, 2007, 8, N3.	1.4	6
210	Generalized wormlike chain model for long-range correlated heteropolymers. Europhysics Letters, 2009, 86, 48001.	2.0	6
211	Emergence of Log-Normal Type Distributions in Avalanche Processes in Living Systems: A Network Model. Frontiers in Applied Mathematics and Statistics, 2021, 6, .	1.3	6
212	Chaos, pseudo-random number generators and the random walk problem. Journal De Physique, 1984, 45, 1843-1857.	1.8	6
213	Oscillating singularities and fractal functions. CRM Proceedings & Lecture Notes, 1999, , 315-329.	0.1	6
214	Uncovering a multiplicative process in one-dimensional cuts of diffusion-limited aggregates. Journal of Difference Equations and Applications, 1995, 1, 117-124.	1.1	5
215	Experimental Evidence for Anomalous Scale Dependent Cascading Process in Turbulent Velocity Statistics. Applied and Computational Harmonic Analysis, 1999, 6, 374-381.	2.2	5
216	A practical method to experimentally evaluate the Hausdorff dimension: An alternative phase-transition-based methodology. Chaos, 2004, 14, 1004-1017.	2.5	5

#	ARTICLE	IF	CITATIONS
217	Large replication skew domains delimit GC-poor gene deserts in human. <i>Computational Biology and Chemistry</i> , 2014, 53, 153-165.	2.3	5
218	A Wavelet-Based Method for Multifractal Analysis of Medical Signals: Application to Dynamic Infrared Thermograms of Breast Cancer. <i>Communications in Computer and Information Science</i> , 2014, , 288-300.	0.5	5
219	Low-energy π - π scattering in a crossing-symmetric model. <i>Il Nuovo Cimento A</i> , 1973, 15, 107-126.	0.2	4
220	Loss of Mammographic Tissue Homeostasis in Invasive Lobular and Ductal Breast Carcinomas vs. Benign Lesions. <i>Frontiers in Physiology</i> , 2021, 12, 660883.	2.8	4
221	Wavelet Analysis of Fractal Signals Application to Fully Developed Turbulence Data. <i>Fluid Mechanics and Its Applications</i> , 1993, , 153-158.	0.2	4
222	Cluster models, local compensation of transverse momenta and transverse data. <i>Nuclear Physics B</i> , 1978, 143, 163-188.	2.5	3
223	Strong decays of $\psi(4.03)$ and $\psi(4.16)$ as radial excitations of charmonium. <i>Zeitschrift für Physik C-Particles and Fields</i> , 1979, 3, 37-41.	1.5	3
224	Scaling for a Periodic Forcing of a Period-Doubling System. <i>Physical Review Letters</i> , 1985, 54, 86-86.	7.8	3
225	DNA in Chromatin: from Genome-Wide Sequence Analysis to the Modeling of Replication in Mammals. <i>Advances in Chemical Physics</i> , 2007, , 203-252.	0.3	3
226	Enlightening intracellular complexity of living cells with quantitative phase microscopy. , 2016, , .		3
227	High-resolution-scanning waveguide microscopy: spatial refractive index and topography quantification. <i>Optics Letters</i> , 2017, 42, 2523.	3.3	3
228	Multifractal Desynchronization of the Cardiac Excitable Cell Network During Atrial Fibrillation. I. Multifractal Analysis of Clinical Data. <i>Frontiers in Physiology</i> , 2018, 8, 1139.	2.8	3
229	Zero contours and π -dominance in low-energy π - π scattering. <i>Il Nuovo Cimento A</i> , 1973, 17, 329-342.	0.2	2
230	A Wavelet-based method for multifractal analysis of rough surfaces : Applications to high-resolution satellite images of cloud structure. <i>AIP Conference Proceedings</i> , 2002, , .	0.4	2
231	Revisiting polymer statistical physics to account for the presence of long-range-correlated structural disorder in 2D DNA chains. <i>European Physical Journal E</i> , 2011, 34, 119.	1.6	2
232	Dynamical study of \mathbf{Na}_v channel excitability under mechanical stress. <i>Biological Cybernetics</i> , 2017, 111, 129-148.	1.3	2
233	The Role of Nucleosome Positioning in Genome Function and Evolution. , 2018, , 41-79.		2
234	FractalsFractal and WaveletsWavelets : What Can We Learn on Transcription and Replication from Wavelet-Based Multifractal AnalysisMultifractal analysis of DNA SequencesDNA sequence ?. , 2009, , 3893-3924.		2

#	ARTICLE	IF	CITATIONS
235	Diffusion Controlled Growth Phenomena: From Smooth Interfaces to Fractal Structures. NATO ASI Series Series B: Physics, 1991, , 297-315.	0.2	2
236	Sustained Non-Equilibrium Patterns in a One-Dimensional Reaction-Diffusion Chemical System. NATO ASI Series Series B: Physics, 1990, , 21-23.	0.2	2
237	Characterizing Spatio-Temporal Chaos in Electrodeposition Experiments. NATO ASI Series Series B: Physics, 1989, , 433-443.	0.2	2
238	Analyse en ondelettes de croissances fractales electrochimiques. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1990, 87, 1487-1545.	0.2	2
239	Transitions to Chaos in a Finite Macroscopic System: Direct Numerical Simulations Versus Normal Form Predictions. Springer Series in Synergetics, 1987, , 313-333.	0.4	2
240	Fibonacci Sequences in Diffusion-Limited Aggregation. NATO ASI Series Series B: Physics, 1993, , 191-202.	0.2	2
241	Strong decays of the vector states of charmonium. Nuclear Physics B, 1980, 167, 413-453.	2.5	1
242	<title>Wavelet analysis of DNA sequences</title>. , 1995, , .		1
243	Analysis of random cascades using the wavelet transform: from theoretical concepts to experimental applications. , 2000, 4119, 58.		1
244	Tracking in real time the crawling dynamics of adherent living cells with a high resolution surface plasmon microscope. Proceedings of SPIE, 2016, , .	0.8	1
245	Fractional rheology of muscle precursor cells. Journal of Rheology, 2018, 62, 1347-1362.	2.6	1
246	Multifractal Desynchronization of the Cardiac Excitable Cell Network During Atrial Fibrillation. II. Modeling. Frontiers in Physiology, 2019, 10, 480.	2.8	1
247	Pattern Growth: From Smooth Interfaces to Fractal Structures. NATO ASI Series Series B: Physics, 1990, , 481-486.	0.2	1
248	Scaling for External Excitations of a Period-Doubling System. Springer Proceedings in Physics, 1984, , 187-194.	0.2	1
249	Type-II Intermittency in the Presence of Additive and Multiplicative Noise. , 1995, , 99-113.		1
250	Zero-contours in low-energy K-€ scattering. Il Nuovo Cimento A, 1975, 25, 511-533.	0.2	0
251	Multi-Regge cluster model versus multiparticle experimental data. Zeitschrift F¼r Physik C-Particles and Fields, 1979, 2, 77-84.	1.5	0
252	Wavelet Based Structural Analysis of Electroless Deposits in the Diffusion Limited Regime. Materials Research Society Symposia Proceedings, 1994, 367, 43.	0.1	0

#	ARTICLE	IF	CITATIONS
253	The thermodynamics of fractals revisited with wavelets. , 1999, , 339-390.		0
254	Towards A New Generation Of Single Molecule High Resolution Sensors. Biophysical Journal, 2009, 96, 29a.	0.5	0
255	Publisher's Note: Inferring Where and When Replication Initiates from Genome-Wide Replication Timing Data [Phys. Rev. Lett.108, 268101 (2012)]. Physical Review Letters, 2012, 109, .	7.8	0
256	Relating mammalian replication program to large-scale chromatin folding. , 2013, , .		0
257	Mechanical Sensing of Living Systems " From Statics to Dynamics. , 0, , .		0
258	Genome-wide alterations of the DNA replication program during tumor progression. AIP Conference Proceedings, 2016, , .	0.4	0
259	Resonant Waveguide Imaging of Living Systems: From Evanescent to Propagative Light. , 2017, , 613-654.		0
260	Une aventure transdisciplinaire - " interface de la physique et de la biologie : le laboratoire Joliot-Curie de l'ENS de Lyon. , 2006, , 14-16.	0.1	0
261	Phenomenological relation between the Kolmogorov constant and the skewness in turbulence. Springer Proceedings in Physics, 2009, , 719-720.	0.2	0
262	FractalsFractal and WaveletsWavelets : What Can We Learn on Transcription and Replication from Wavelet-Based Multifractal AnalysisMultifractal analysis of DNA SequencesDNA sequence ?. , 2012, , 606-636.		0
263	Wavelet-based multifractal analysis of dynamic infrared thermograms and X-ray mammograms to assist in early breast cancer diagnosis. , 2014, , .		0
264	Nonlinear Interactions Between Instabilities Leading to Chaos in the Belousov-Zhabotinsky Reaction. Springer Series in Synergetics, 1984, , 146-148.	0.4	0
265	Wavelet Transform Analysis of Invariant Measures of Some Dynamical Systems. Inverse Problems and Theoretical Imaging, 1990, , 182-196.	0.2	0
266	Experimental Evidence for Spatio-Temporal Chaos in Diffusion-Limited Growth Phenomena. NATO ASI Series Series B: Physics, 1991, , 329-343.	0.2	0
267	Modeling Front Pattern Formation and Intermittent Bursting Phenomena in the Couette Flow Reactor. , 1995, , 517-570.		0
268	Scale Invariance and Beyond: What Can We Learn from Wavelet Analysis ?. , 1997, , 37-51.		0
269	Uncovering a Log-Normal Cascade Process in High Reynolds Number Turbulence from Wavelet Analysis. Fluid Mechanics and Its Applications, 1998, , 215-218.	0.2	0
270	Resonant Waveguide Imaging of Living Systems: From Evanescent to Propagative Light. , 2016, , 1-42.		0