Nicholas V Sarlis

List of Publications by Year
in descending order

150 papers	5,255 citations	94381 37 h-index	102432 66 g-index
163 all docs	163 docs citations	163 times ranked	989 citing authors

#	Article	IF	Citations
1	Long-range correlations in the electric signals that precede rupture. Physical Review E, 2002, 66, 011902.	0.8	301
2	Long-range correlations in the electric signals that precede rupture: Further investigations. Physical Review E, 2003, 67, 021109.	0.8	184
3	Attempt to distinguish electric signals of a dichotomous nature. Physical Review E, 2003, 68, 031106.	0.8	177
4	Similarity of fluctuations in correlated systems: The case of seismicity. Physical Review E, 2005, 72, 041103.	0.8	175
5	Natural Time Analysis: The New View of Time. , 2011, , .		168
6	Attempt to distinguish long-range temporal correlations from the statistics of the increments by natural time analysis. Physical Review E, 2006, 74, 021123.	0.8	140
7	Entropy of seismic electric signals: Analysis in natural time under time reversal. Physical Review E, 2006, 73, 031114.	0.8	135
8	Some properties of the entropy in the natural time. Physical Review E, 2005, 71, 032102.	0.8	132
9	Minimum of the order parameter fluctuations of seismicity before major earthquakes in Japan. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13734-13738.	3.3	130
10	Seismic Electric Signals: An additional fact showing their physical interconnection with seismicity. Tectonophysics, 2013, 589, 116-125.	0.9	127
11	Investigation of seismicity after the initiation of a Seismic Electric Signal activity until the main shock. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2008, 84, 331-343.	1.6	121
12	Natural time analysis of critical phenomena. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11361-11364.	3.3	120
13	Electric Fields that â€œArriveâ€•before the Time Derivative of the Magnetic Field prior to Major Earthquakes. Physical Review Letters, 2003, 91, 148501.	2.9	114
14	Nonextensivity and natural time: The case of seismicity. Physical Review E, 2010, 82, 021110.	0.8	114
15	Study of the temporal correlations in the magnitude time series before major earthquakes in Japan. Journal of Geophysical Research: Space Physics, 2014, 119, 9192-9206.	0.8	113
16	Entropy in the natural time domain. Physical Review E, 2004, 70, 011106.	0.8	108
17	Transmission of stress induced electric signals in dielectric media. Journal of Applied Physics, 1998, 83, 60-70.	1.1	105
18	Scale-specific order parameter fluctuations of seismicity in natural time before mainshocks. Europhysics Letters, 2011, 96, 59002.	0.7	99

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19	Fluctuations, under time reversal, of the natural time and the entropy distinguish similar looking electric signals of different dynamics. Journal of Applied Physics, 2008, 103, 014906.	1.1	96
20	Natural entropy fluctuations discriminate similar-looking electric signals emitted from systems of different dynamics. Physical Review E, 2005, 71, 011110.	0.8	95
21	Interconnection of defect parameters and stress-induced electric signals in ionic crystals. Physical Review B, 1999, 59, 24-27.	1.1	92
22	Origin of the Usefulness of the Natural-Time Representation of Complex Time Series. Physical Review Letters, 2005, 94, 170601.	2.9	92
23	Detrended fluctuation analysis of the magnetic and electric field variations that precede rupture. Chaos, 2009, 19, 023114.	1.0	88
24	Identifying sudden cardiac death risk and specifying its occurrence time by analyzing electrocardiograms in natural time. Applied Physics Letters, 2007, 91, .	1.5	86
25	Spatiotemporal variations of seismicity before major earthquakes in the Japanese area and their relation with the epicentral locations. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 986-989.	3.3	85
26	Order parameter fluctuations of seismicity in natural time before and after mainshocks. Europhysics Letters, 2010, 91, 59001.	0.7	72
27	Numerical model of the selectivity effect and the Î”V/L criterion. Geophysical Research Letters, 1999, 26, 3245-3248.	1.5	65
28	On the progress of the 2015â€“2016 El NiÃ±o event. Atmospheric Chemistry and Physics, 2016, 16, 2007-2011.	1.9	56
29	A plausible universal behaviour of earthquakes in the natural time-domain. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2004, 80, 283-289.	1.6	54
30	The change of the entropy in natural time under time-reversal in the Olamiâ€“Federâ€“Christensen earthquake model. Tectonophysics, 2011, 513, 49-53.	0.9	49
31	Self-organized criticality and earthquake predictability: A long-standing question in the light of natural time analysis. Europhysics Letters, 2020, 132, 29001.	0.7	43
32	Multiplicative cascades and seismicity in natural time. Physical Review E, 2009, 80, 022102.	0.8	42
33	Similarity of fluctuations in systems exhibiting Self-Organized Criticality. Europhysics Letters, 2011, 96, 28006.	0.7	42
34	Scale-specific order parameter fluctuations of seismicity before mainshocks: Natural time and Detrended Fluctuation Analysis. Europhysics Letters, 2012, 99, 59001.	0.7	41
35	Natural-time analysis of critical phenomena:â€‰Theâ€‰caseâ€‰ofâ€‰seismicity. Europhysics Letters, 2010, 92, 29002.	0.7	40
36	Natural time analysis: On the deadly Mexico M8.2 earthquake on 7 September 2017. Physica A: Statistical Mechanics and Its Applications, 2018, 506, 625-634.	1.2	40

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37	Phenomena preceding major earthquakes interconnected through a physical model. Annales Geophysicae, 2019, 37, 315-324.	0.6	40
38	A remarkable change of the entropy of seismicity in natural time under time reversal before the super-giant M9 Tohoku earthquake on 11 March 2011. Europhysics Letters, 2018, 124, 29001.	0.7	39
39	Natural time analysis of the Centennial Earthquake Catalog. Chaos, 2012, 22, 023123.	1.0	37
40	Tsallis Entropy Index q and the Complexity Measure of Seismicity in Natural Time under Time Reversal before the M9 Tohoku Earthquake in 2011. Entropy, 2018, 20, 757.	1.1	36
41	Origin of infrared bands in neutron-irradiated silicon. Journal of Applied Physics, 1997, 81, 1645-1650.	1.1	34
42	On the anomalous changes of seismicity and geomagnetic field prior to the 2011 9.0 Tohoku earthquake. Journal of Asian Earth Sciences, 2014, 80, 161-164.	1.0	34
43	Magnetic field near the outcrop of an almost horizontal conductive sheet. Journal of Geodynamics, 2002, 33, 463-476.	0.7	33
44	Change Î”S of the entropy in natural time under time reversal: Complexity measures upon change of scale. Europhysics Letters, 2015, 109, 18002.	0.7	33
45	Identifying the occurrence time of an impending major earthquake: a review. Earthquake Science, 2017, 30, 209-218.	0.4	33
46	Micro-scale, mid-scale, and macro-scale in global seismicity identified by empirical mode decomposition and their multifractal characteristics. Scientific Reports, 2018, 8, 9206.	1.6	33
47	Fluctuations of the entropy change under time reversal: Further investigations on identifying the occurrence time of an impending major earthquake. Europhysics Letters, 2020, 130, 29001.	0.7	33
48	Precursor defect to the vacancy-dioxygen center in Si. Physical Review B, 1996, 53, 6900-6903.	1.1	32
49	Flux avalanches inYBa2Cu3O7âˆ’xfilms and rice piles: Natural time domain analysis. Physical Review B, 2006, 73, .	1.1	32
50	Heart rate variability in natural time and 1/f â€œnoiseâ€. Europhysics Letters, 2009, 87, 18003.	0.7	32
51	The Complexity Measures Associated with the Fluctuations of the Entropy in Natural Time before the Deadly MÃ©xico M8.2 Earthquake on 7 September 2017. Entropy, 2018, 20, 477.	1.1	32
52	A Prototype Photoplethysmography Electronic Device that Distinguishes Congestive Heart Failure from Healthy Individuals by Applying Natural Time Analysis. Electronics (Switzerland), 2019, 8, 1288.	1.8	30
53	Order parameter fluctuations in natural time and <i>b</i>-value variation before large earthquakes. Natural Hazards and Earth System Sciences, 2012, 12, 3473-3481.	1.5	28
54	Nowcasting Avalanches as Earthquakes and the Predictability of Strong Avalanches in the Olami-Feder-Christensen Model. Entropy, 2020, 22, 1228.	1.1	28

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55	Visualization of the significance of Receiver Operating Characteristics based on confidence ellipses. Computer Physics Communications, 2014, 185, 1172-1176.	3.0	26
56	Statistical Significance of Earthâ€™s Electric and Magnetic Field Variations Preceding Earthquakes in Greece and Japan Revisited. Entropy, 2018, 20, 561.	1.1	26
57	Natural Time Analysis: The Area under the Receiver Operating Characteristic Curve of the Order Parameter Fluctuations Minima Preceding Major Earthquakes. Entropy, 2020, 22, 583.	1.1	26
58	Magnitude correlations in global seismicity. Physical Review E, 2011, 84, 022101.	0.8	24
59	Additional evidence on some relationship between Seismic Electric Signals (SES) and earthquake focal mechanism. Tectonophysics, 2006, 412, 279-288.	0.9	23
60	On the scaling of the solar incident flux. Atmospheric Chemistry and Physics, 2015, 15, 7301-7306.	1.9	23
61	Estimating the Epicenter of a Future Strong Earthquake in Southern California, Mexico, and Central America by Means of Natural Time Analysis and Earthquake Nowcasting. Entropy, 2021, 23, 1658.	1.1	20
62	Fracture analysis of typical construction materials in natural time. Physica A: Statistical Mechanics and Its Applications, 2020, 547, 123831.	1.2	19
63	Effect of significant data loss on identifying electric signals that precede rupture estimated by detrended fluctuation analysis in natural time. Chaos, 2010, 20, 033111.	1.0	18
64	Minima of the fluctuations of the order parameter of seismicity and earthquake networks based on similar activity patterns. Physica A: Statistical Mechanics and Its Applications, 2019, 527, 121293.	1.2	18
65	Natural time analysis: Important changes of the order parameter of seismicity preceding the 2011 M9 Tohoku earthquake in Japan. Europhysics Letters, 2019, 125, 69001.	0.7	18
66	Detrended fluctuation analysis of seismicity and order parameter fluctuations before the M7.1 Ridgecrest earthquake. Natural Hazards, 2020, 100, 697-711.	1.6	18
67	Estimating the Epicenter of an Impending Strong Earthquake by Combining the Seismicity Order Parameter Variability Analysis with Earthquake Networks and Nowcasting: Application in the Eastern Mediterranean. Applied Sciences (Switzerland), 2021, 11, 10093.	1.3	18
68	Magnetic field variations associated with the SES before the 6.6 Grevena-Kozani earthquake. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2001, 77, 93-97.	1.6	17
69	Electric pulses some minutes before earthquake occurrences. Applied Physics Letters, 2007, 90, 064104.	1.5	17
70	Remarkable changes in the distribution of the order parameter of seismicity before mainshocks. Europhysics Letters, 2012, 100, 39002.	0.7	17
71	Minima of the fluctuations of the order parameter of global seismicity. Chaos, 2015, 25, 063110.	1.0	17
72	Statistical Significance of Minimum of the Order Parameter Fluctuations of Seismicity Before Major Earthquakes in Japan. Pure and Applied Geophysics, 2016, 173, 165-172.	0.8	17

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73	Natural Time Analysis of Seismicity within the Mexican Flat Slab before the M7.1 Earthquake on 19 September 2017. Entropy, 2020, 22, 730.	1.1	17
74	On the Statistical Significance of the Variability Minima of the Order Parameter of Seismicity by Means of Event Coincidence Analysis. Applied Sciences (Switzerland), 2020, 10, 662.	1.3	17
75	Isochronal Annealing Studies of the Oxygenâ€"Vacancy Centres in Neutron-Irradiated Si. Physica Status Solidi A, 1997, 163, 325-335.	1.7	16
76	Study in Natural Time of Geoelectric Field and Seismicity Changes Preceding the Mw6.8 Earthquake on 25 October 2018 in Greece. Entropy, 2018, 20, 882.	1.1	16
77	A plausible explanation of the b-value in the Gutenberg-Richter law from first Principles. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2004, 80, 429-434.	1.6	15
78	What happened before the last five strong earthquakes in Greece: Facts and open questions. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2006, 82, 86-91.	1.6	15
79	Estimating the Compressibility of Osmium from Recent Measurements of Irâ€"Os Alloys under High Pressure. Journal of Physical Chemistry A, 2016, 120, 1601-1604.	1.1	15
80	On the association between the recent episode of the quasi-biennial oscillation and the strong El NiÃ±o event. Theoretical and Applied Climatology, 2018, 133, 569-577.	1.3	15
81	Introduction to Seismic Electric Signals. , 2011, , 3-115.		15
82	Seismic electric signals in seismic prone areas. Earthquake Science, 2018, 31, 44-51.	0.4	15
83	Prediction of the 6.6 Grevena-Kozani earthquake of May 13, 1995. Physics and Chemistry of the Earth, 1999, 24, 115-121.	0.6	14
84	Magnetic field variations associated with SES. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2001, 77, 87-92.	1.6	14
85	Pressure and temperature dependence of the oxygen self-diffusion activation volume in UO2 by a thermodynamical model. Solid State Ionics, 2016, 290, 121-123.	1.3	14
86	Identifying the occurrence time of an impending mainshock: a very recent case. Earthquake Science, 2015, 28, 215-222.	0.4	13
87	Estimation of multifractality based on natural time analysis. Physica A: Statistical Mechanics and Its Applications, 2018, 512, 153-164.	1.2	13
88	Investigation of the temporal correlations between earthquake magnitudes before the Mexico M8.2 earthquake on 7 September 2017. Physica A: Statistical Mechanics and Its Applications, 2019, 517, 475-483.	1.2	13
89	Order Parameter and Entropy of Seismicity in Natural Time before Major Earthquakes: Recent Results. Geosciences (Switzerland), 2022, 12, 225.	1.0	13
90	An Application of the Coherent Noise Model for the Prediction of Aftershock Magnitude Time Series. Complexity, 2017, 2017, 1-27.	0.9	12

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91	Identifying the Occurrence Time of the Deadly Mexico M8.2 Earthquake on 7 September 2017. Entropy, 2019, 21, 301.	1.1	12
92	Entropy in Natural Time and the Associated Complexity Measures. Entropy, 2017, 19, 177.	1.1	11
93	A new method of nowcasting extreme cosmic ray events. Remote Sensing Letters, 2023, 14, 576-584.	0.6	11
94	Interconnection of a thermodynamical model for point defect parameters in solids with the dynamical theory of diffusion. Solid State Ionics, 2019, 335, 82-85.	1.3	10
95	Numerical model of the selectivity effect and the Î”V/L criterion. Geophysical Research Letters, 1999, 26, 3245-3248.	1.5	10
96	-exponential relaxation of the expected avalanche size in the coherent noise model. Physica A: Statistical Mechanics and Its Applications, 2014, 407, 216-225.	1.2	9
97	On the Motivation and Foundation of Natural Time Analysis: Useful Remarks. Acta Geophysica, 2016, 64, 841-852.	1.0	9
98	Remote sensing natural time analysis of heartbeat data by means of a portable photoplethysmography device. International Journal of Remote Sensing, 2021, 42, 2292-2302.	1.3	9
99	Thermodynamics of Point Defects in Solids and Relation with the Bulk Properties: Recent Results. Crystals, 2022, 12, 686.	1.0	9
100	Infrared studies of defects formed during postirradiation anneals of Czochralski silicon. Journal of Applied Physics, 1998, 84, 3569-3573.	1.1	8
101	Time-difference between the electric field components of signals prior to major earthquakes. Applied Physics Letters, 2005, 86, 194101.	1.5	8
102	On the recent advances in the study of seismic electric signals (VAN method). Physics and Chemistry of the Earth, 2006, 31, 189-197.	1.2	8
103	Recent Seismic Electric Signals (SES) activities in Greece. Acta Geophysica, 2006, 54, 158-164.	1.0	8
104	Identifying long-range correlated signals upon significant periodic data loss. Tectonophysics, 2011, 503, 189-194.	0.9	8
105	Predictability of the coherent-noise model and its applications. Physical Review E, 2012, 85, 051136.	0.8	8
106	M W9 Tohoku earthquake in 2011 in Japan: precursors uncovered by natural time analysis. Earthquake Science, 2017, 30, 183-191.	0.4	8
107	Precursory variations of Tsallis non-extensive statistical mechanics entropic index associated with the M9 Tohoku earthquake in 2011. European Physical Journal: Special Topics, 2020, 229, 851-859.	1.2	8
108	A tentative model for the explanation of BÃ¥th law using the order parameter of seismicity in natural time. Earthquake Science, 2016, 29, 311-319.	0.4	7

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109	Applying the cBÎ© thermodynamical model to LiF using its equation of state obtained from high pressure diamond anvil cell measurements. Solid State Ionics, 2020, 354, 115404.	1.3	7
110	Similarity of fluctuations in critical systems: Acoustic emissions observed before fracture. Physica A: Statistical Mechanics and Its Applications, 2021, 566, 125622.	1.2	7
111	Scaling Behavior of Peat Properties during the Holocene: A Case Study from Central European Russia. Land, 2022, 11, 862.	1.2	7
112	Identifying the occurrence time of an impending major earthquake by means of the fluctuations of the entropy change under time reversal. Europhysics Letters, 2019, 128, 49001.	0.7	6
113	Reply to â€œRebuttal to Reply by Varotsos and Lazaridou: Towards plainly successful prediction,â€•by Paul W. Burton. Geophysical Research Letters, 1996, 23, 1389-1390.	1.5	5
114	Magnetic-electric two-dimensional Euclidean group. Physical Review B, 1996, 54, 5334-5339.	1.1	5
115	Coherent states for the two-dimensional magnetic-electric Euclidean group MEE(2). Physical Review B, 1997, 56, 9406-9413.	1.1	5
116	On the difference in the rise times of the two SES electric field components. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2004, 80, 276-282.	1.6	5
117	The unusual case of the ultra-deep 2015 Ogasawara earthquake (MW7.9): Natural time analysis. Europhysics Letters, 2021, 135, 49002.	0.7	5
118	On the recent seismic activity in North-Eastern Aegean Sea including the <i>M_w</i>5.8 earthquake on 8 January 2013. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2013, 89, 438-445.	1.6	4
119	Comparison of the R-R intervals in ECG and Oximeter signals to be used in complexity measures of Natural Time Analysis. , 2018, , .		4
120	Shooting solitaries due to small-world connectivity in leaky integrate-and-fire networks. Chaos, 2021, 31, 083129.	1.0	4
121	Theoretical investigation of nitrogen-vacancy defects in silicon. AIP Advances, 2022, 12, .	0.6	4
122	Natural time analysis of acoustic emissions before fracture: Results compatible with the Bak-Tang-Wiesenfeld model. Europhysics Letters, 2022, 139, 12004.	0.7	4
123	A calculation of the surface charges and the electric field outside steady current carrying conductors. European Journal of Physics, 1996, 17, 37-42.	0.3	3
124	Shoulder at the 887 cmâ˜'1 infrared band in neutron irradiated Si. Journal of Applied Physics, 1999, 85, 8074-8078.	1.1	3
125	Bulk moduli of PbSxSe1â˜'x, PbSxTe1â˜'x and PbSexTe1â˜'x from the combination of the cBÎ© model with the modified Born theory compared to generalized gradient approximation. Modern Physics Letters B, 2016, 30, 1650409.	1.0	3
126	Natural Time Analysis of Seismic Time Series. , 2018, , 199-235.		3

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127	The Interstitial Carbonâ€“Dioxygen Center in Irradiated Silicon. Crystals, 2020, 10, 1005.	1.0	3
128	Similarity of fluctuations of acoustic emissions in natural time. Procedia Structural Integrity, 2020, 25, 195-200.	0.3	3
129	The remotely sensed geometric data of rain and clouds as a basis for studying extreme events. Remote Sensing Letters, 0, , 1-7.	0.6	3
130	Natural Time Analysis: Results Related to Two Earthquakes in Greece during 2019. Proceedings (mdpi), 2019, 24, 20.	0.2	2
131	Entropy in Natural Time. , 2011, , 159-187.		2
132	Natural Time Analysis of Electrocardiograms. , 2011, , 381-435.		2
133	A percolation model for the explanation of fractal paraconductivity behavior in a YBaCuO sample. Physica C: Superconductivity and Its Applications, 1999, 317-318, 648-651.	0.6	1
134	A review on the statistical significance of VAN predictions. Physics and Chemistry of the Earth, 1999, 24, 111-114.	0.6	1
135	Comment on â€˜Electrical conductivity and crustal structure beneath the central Hellenides around the Gulf of Corinth (Greece) and their relationship with the seismotectonicsâ€™ by Phamet al.. Geophysical Journal International, 2005, 162, 332-336.	1.0	1
136	Stochastic parametric amplification due to higher order correlations: A perturbative approach to non-Abelian effects in time ordering. Physical Review E, 2006, 74, 051118.	0.8	1
137	Substitutional carbon-dioxygen center in irradiated silicon. Materials Science in Semiconductor Processing, 2021, 127, 105661.	1.9	1
138	Isochronal Annealing Studies of the Oxygenâ€“Vacancy Centres in Neutron-Irradiated Si. , 1997, 163, 325.		1
139	Natural Time Analysis of Dynamical Models. , 2011, , 341-380.		1
140	Natural Time Analysis of Seismic Electric Signals. , 2011, , 191-235.		1
141	Infrared bands association with multivacancy-oxygen defects in silicon. , 0, , .		0
142	An IR Study of the Annealing Behaviour of A-Center in Silicon. Solid State Phenomena, 1997, 57-58, 245-250.	0.3	0
143	Application of the magnetic-electric two-dimensional Euclidean group to the case of anyons. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 246, 343-346.	0.9	0
144	Electric Polarization Related to Defects and Transmission of the Related Signals. International Geophysics, 2001, 76, 463-499.	0.6	0

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145	Magnetolelluric data collection and analysis in the SES sensitive site of Ioannina area (Greece). Physics and Chemistry of the Earth, 2006, 31, 198-203.	1.2	0
146	10.1063/5.0055163.1. , 2021, , .		0
147	Natural Time Analysis of Seismicity. , 2011, , 247-289.		0
148	Natural Time. Background. , 2011, , 119-157.		0
149	Natural Time Investigation of the Effect of Significant Data Loss on Identifying Seismic Electric Signals. , 2011, , 237-245.		0
150	Identifying the Occurrence Time of an Impending Mainshock. , 2011, , 291-339.		0