Stelios M Potirakis

List of Publications by Year
in descending order

124 papers	1,423 citations	361296 20 h-index	477173 29 g-index
137 all docs	137 docs citations	137 times ranked	753 citing authors

#	Article	IF	Citations
1	Statistical Mechanics and Information-Theoretic Perspectives on Complexity in the Earth System. Entropy, 2013, 15, 4844-4888.	1.1	85
2	Analysis of electromagnetic pre-seismic emissions using Fisher information and Tsallis entropy. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 300-306.	1.2	53
3	Criticality features in ULF magnetic fields prior to the 2011 Tohoku earthquake. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2015, 91, 25-30.	1.6	45
4	Natural time analysis of critical phenomena: The case of pre-fracture electromagnetic emissions. Chaos, 2013, 23, 023117.	1.0	41
5	Linking electromagnetic precursors with earthquake dynamics: An approach based on nonextensive fragment and self-affine asperity models. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 2232-2244.	1.2	40
6	Criticality Analysis of the Lower Ionosphere Perturbations Prior to the 2016 Kumamoto (Japan) Earthquakes as Based on VLF Electromagnetic Wave Propagation Data Observed at Multiple Stations. Entropy, 2018, 20, 199.	1.1	37
7	Pre-Seismic Irregularities during the 2020 Samos (Greece) Earthquake (M = 6.9) as Investigated from Multi-Parameter Approach by Ground and Space-Based Techniques. Atmosphere, 2021, 12, 1059.	1.0	33
8	Current challenges for pre-earthquake electromagnetic emissions: shedding light from micro-scale plastic flow, granular packings, phase transitions and self-affinity notion of fracture process. Nonlinear Processes in Geophysics, 2013, 20, 771-792.	0.6	32
9	Tricritical crossover in earthquake preparation by analyzing preseismic electromagnetic emissions. Journal of Geodynamics, 2015, 84, 40-54.	0.7	31
10	Environmental monitoring of radon in soil during a very seismically active period occurred in South West Greece. Journal of Environmental Monitoring, 2012, 14, 564-578.	2.1	30
11	Recent seismic activity at Cephalonia (Greece): a study through candidate electromagnetic precursors in terms of non-linear dynamics. Nonlinear Processes in Geophysics, 2016, 23, 223-240.	0.6	29
12	Recent Field Observations Indicating an Earth System in Critical Condition Before the Occurrence of a Significant Earthquake. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 631-635.	1.4	28
13	Natural time analysis on the ultra-low frequency magnetic field variations prior to the 2016 Kumamoto (Japan) earthquakes. Journal of Asian Earth Sciences, 2018, 154, 419-427.	1.0	27
14	Intermittent criticality revealed in ULF magnetic fields prior to the 11 March 2011 Tohoku earthquake (<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si21.gif" display="inline") Tj ETQq0 0 0 rgBT /Overlock 10 Tf Physica A: Statistical Mechanics and Its Applications, 2016, 452, 19-28.	1.2	25
15	Relation between seismicity and pre-earthquake electromagnetic emissions in terms of energy, information and entropy content. Natural Hazards and Earth System Sciences, 2012, 12, 1179-1183.	1.5	24
16	On the puzzling feature of the silence of precursory electromagnetic emissions. Natural Hazards and Earth System Sciences, 2013, 13, 2381-2397.	1.5	24
17	The Earth as a living planet: human-type diseases in the earthquake preparation process. Natural Hazards and Earth System Sciences, 2013, 13, 125-139.	1.5	23
18	Fractal analysis of the ground-recorded ULF magnetic fields prior to the 11 March 2011 Tohoku earthquake (M WÂ=Â9): discriminating possible earthquake precursors from space-sourced disturbances. Natural Hazards, 2017, 85, 59-86.	1.6	23

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19	AI-Inspired Non-Terrestrial Networks for IIoT: Review on Enabling Technologies and Applications. IoT, 2020, 1, 21-48.	2.3	23
20	Dynamical analogy between epileptic seizures and seismogenic electromagnetic emissions by means of nonextensive statistical mechanics. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 497-509.	1.2	21
21	Natural Time Analysis of Global Navigation Satellite System Surface Deformation: The Case of the 2016 Kumamoto Earthquakes. Entropy, 2020, 22, 674.	1.1	21
22	A multidisciplinary analysis for traces of the last state of earthquake generation in preseismic electromagnetic emissions. Natural Hazards and Earth System Sciences, 2011, 11, 2859-2879.	1.5	19
23	Temporal correlation patterns in pre-seismic electromagnetic emissions reveal distinct complexity profiles prior to major earthquakes. Physics and Chemistry of the Earth, 2015, 85-86, 44-55.	1.2	19
24	In-Vivo Vibroacoustic Surveillance of Trees in the Context of the IoT. Sensors, 2019, 19, 1366.	2.1	19
25	On Possible Electromagnetic Precursors to a Significant Earthquake (Mw = 6.3) Occurred in Lesvos (Greece) on 12 June 2017. Entropy, 2019, 21, 241.	1.1	19
26	Criticality Hidden in Acoustic Emissions and in Changing Electrical Resistance during Fracture of Rocks and Cement-Based Materials. Materials, 2020, 13, 5608.	1.3	19
27	An Integrated Study of ULF Magnetic Field Variations in Association with the 2008 Sichuan Earthquake, on the Basis of Statistical and Critical Analyses. Open Journal of Earthquake Research, 2015, 04, 85-93.	0.9	19
28	The ALICE Collaboration. Nuclear Physics A, 2009, 830, 919c-924c.	0.6	18
29	Observation of Intermittency-Induced Critical Dynamics in Geomagnetic Field Time Series Prior to the Intense Magnetic Storms of March, June, and December 2015. Journal of Geophysical Research: Space Physics, 2018, 123, 4594-4613.	0.8	18
30	Evidence of critical dynamics in various electromagnetic precursors. European Physical Journal: Special Topics, 2021, 230, 151-177.	1.2	18
31	Unusual Surface Latent Heat Flux Variations and Their Critical Dynamics Revealed before Strong Earthquakes. Entropy, 2022, 24, 23.	1.1	18
32	ANN-Based Estimation of Groundwater Quality Using a Wireless Water Quality Network. International Journal of Distributed Sensor Networks, 2014, 10, 458329.	1.3	16
33	Critical features revealed in acoustic and electromagnetic emissions during fracture experiments on LiF. Physica A: Statistical Mechanics and Its Applications, 2017, 485, 11-22.	1.2	16
34	Signatures of the symmetry breaking phenomenon in pre-seismic electromagnetic emissions. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 083208.	0.9	16
35	On the Precursory Abnormal Animal Behavior and Electromagnetic Effects for the Kobe Earthquake (M~6) on April 12, 2013. Open Journal of Earthquake Research, 2016, 05, 165-171.	0.9	15
36	A Two-Level Sound Classification Platform for Environmental Monitoring. Journal of Sensors, 2018, 2018, 1-13.	0.6	14

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37	Temporal organization of magnetospheric fluctuations unveiled by recurrence patterns in the Dst index. Chaos, 2018, 28, 085716.	1.0	14
38	PSG-Audio, a scored polysomnography dataset with simultaneous audio recordings for sleep apnea studies. Scientific Data, 2021, 8, 197.	2.4	14
39	Sudden drop of fractal dimension of electromagnetic emissions recorded prior to significant earthquake. Natural Hazards, 2012, 64, 641-650.	1.6	13
40	The role of propagating stress waves on a geophysical scale: Evidence in terms of nonextensivity. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 5648-5657.	1.2	13
41	Intrinsic vs. spurious long-range memory in high-frequency records of environmental radioactivity. European Physical Journal: Special Topics, 2015, 224, 741-762.	1.2	13
42	Wireless sensor network-based communication for cooperative simultaneous localization and mapping. Computers and Electrical Engineering, 2015, 41, 407-425.	3.0	13
43	Intermittency-induced criticality in the lower ionosphere prior to the 2016 Kumamoto earthquakes as embedded in the VLF propagation data observed at multiple stations. Tectonophysics, 2018, 722, 422-431.	0.9	13
44	Lévy and Gauss statistics in the preparation of an earthquake. Physica A: Statistical Mechanics and Its Applications, 2019, 528, 121360.	1.2	13
45	TreeVibes: Modern Tools for Global Monitoring of Trees for Borers. Smart Cities, 2021, 4, 271-285.	5.5	13
46	Statistical and Criticality Analysis of the Lower Ionosphere Prior to the 30 October 2020 Samos (Greece) Earthquake (M6.9), Based on VLF Electromagnetic Propagation Data as Recorded by a New VLF/LF Receiver Installed in Athens (Greece). Entropy, 2021, 23, 676.	1.1	13
47	Intermittency-induced criticality in a resistor-inductor-diode circuit. Physical Review E, 2017, 95, 042206.	0.8	12
48	Four-Stage Model of Earthquake Generation in Terms of Fracture-Induced Electromagnetic Emissions. , 2018, , 437-502.		12
49	Criticality features in ultra-low frequency magnetic fields prior to the 2013 M6.3 Kobe earthquake. Annals of Geophysics, 2016, 59, .	0.5	12
50	A Universal Physics-Based Model Describing COVID-19 Dynamics in Europe. International Journal of Environmental Research and Public Health, 2020, 17, 6525.	1.2	11
51	Seismogenic Anomalies in Atmospheric Gravity Waves as Observed from SABER/TIMED Satellite during Large Earthquakes. Journal of Sensors, 2022, 2022, 1-23.	0.6	11
52	Investigating Dynamical Complexity of Geomagnetic Jerks Using Various Entropy Measures. Frontiers in Earth Science, 2016, 4, .	0.8	10
53	Electromagnetic Precursors to the 2016 Kumamoto Earthquakes. Open Journal of Earthquake Research, 2017, 06, 168-179.	0.9	10
54	A wearable magnetic sensing device for identifying the presence of static magnetic fields. Measurement: Journal of the International Measurement Confederation, 2017, 109, 44-50.	2.5	9

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55	Intermittency-induced criticality in the random telegraph noise of nanoscale UTBB FD-SOI MOSFETs. Microelectronic Engineering, 2019, 216, 111027.	1.1	9
56	Does air ionization by radon cause low-frequencyÂatmospheric electromagnetic earthquake precursors?. Natural Hazards, 2021, 106, 701-714.	1.6	9
57	Natural soundscapes and identification of environmental sounds: A pattern recognition approach. , 2009, , .		8
58	Dynamical analogy between economical crisis and earthquake dynamics within the nonextensive statistical mechanics framework. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 2940-2954.	1.2	8
59	Acoustic Sensor Data Flow for Cultural Heritage Monitoring and Safeguarding. Sensors, 2019, 19, 1629.	2.1	8
60	Analysis of the ultra-low frequency magnetic field fluctuations prior to the 2016 Kumamoto (Japan) earthquakes in terms of the method of critical fluctuations. Physica A: Statistical Mechanics and Its Applications, 2019, 514, 563-572.	1.2	8
61	Direct and indirect evidence of pre-seismic electromagnetic emissions associated with two large earthquakes in Japan. Natural Hazards, 2022, 112, 2403-2432.	1.6	8
62	Sonic perceptual crossings. , 2011, , .		7
63	A Wireless Network of Acoustic Sensors for Environmental Monitoring. Key Engineering Materials, 2014, 605, 43-46.	0.4	7
64	On the effect of compression on the complexity characteristics of wireless acoustic sensor network signals. Signal Processing, 2015, 107, 153-163.	2.1	7
65	Criticality in epidemic spread: An application in the case of COVID19 infected population. Chaos, 2021, 31, 043109.	1.0	7
66	Wireless Sensor Network-Based Water Quality Monitoring System. Key Engineering Materials, 2014, 605, 47-50.	0.4	6
67	Multi-spectral detection of statistically significant components in pre-seismic electromagnetic emissions related with Athens 1999, M=5.9 earthquake. Journal of Applied Geophysics, 2016, 128, 41-57.	0.9	6
68	Computational Analysis of a Thermoelectric Generator for Waste-Heat Harvesting in Wearable Systems. Journal of Electronic Materials, 2016, 45, 2957-2966.	1.0	6
69	Experimental study of the dynamic evolution of cumulative energy release during LiF fracture under uniaxial compression. International Journal of Solids and Structures, 2018, 132-133, 59-65.	1.3	6
70	An accurate calculation of Miller effect on the frequency response and on the input and output impedances of feedback amplifiers. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2005, 52, 491-495.	2.3	5
71	A comparative study by using two different log-periodic power laws on acoustic emission signals from LiF specimens under compression. Engineering Fracture Mechanics, 2019, 210, 170-180.	2.0	5
72	Wavelet-based detection of scaling behavior in noisy experimental data. Physical Review E, 2020, 101, 052104.	0.8	5

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73	Criticality analysis of 3-year-long VLF subionospheric propagation data possibly related to significant earthquake events in Japan. Natural Hazards, 2020, 102, 47-66.	1.6	5
74	Spontaneous symmetry breaking in the phase space. Physica Scripta, 2021, 96, 075204.	1.2	5
75	Study of Static and Dynamic Properties of Sand under Low Stress Compression. Applied Sciences (Switzerland), 2021, 11, 3311.	1.3	5
76	Tachyons and Solitons in Spontaneous Symmetry Breaking in the Frame of Field Theory. Symmetry, 2021, 13, 1358.	1.1	5
77	The Feedback Decomposition Theorem: The evolution of Miller's Theorem. International Journal of Electronics, 1998, 85, 571-587.	0.9	4
78	On the use of time-frequency distributions for the power quality problem of harmonics. , 2010, , .		4
79	Neural Network Fusion and Selection Techniques for Noise-Efficient Sound Classification. AES: Journal of the Audio Engineering Society, 2019, 67, 27-37.	0.8	4
80	Stickiness in the order parameter time-series as a signature of criticality. Physica A: Statistical Mechanics and Its Applications, 2020, 544, 123508.	1.2	4
81	ANN-Based Control of a Multiboat Group for the Deployment of an Underwater Sensor Network. International Journal of Distributed Sensor Networks, 2014, 10, 786154.	1.3	4
82	Possible relation of air ion density anomalies with earthquakes and the associated precursory ionospheric perturbations: An analysis in terms of criticality. International Journal of Electronics and Applied Research, 2018, 5, 56-75.	0.8	4
83	Numerical modelling of sub-ionospheric Very Low Frequency radio signal anomalies during the Samos (Greece) earthquake (M$=$ 6.9) on October 30, 2020. Advances in Space Research, 2022, 70, 1453-1471.	1.2	4
84	Generalized two-port performance evaluation. , 0, , .		3
85	Steady-State and Transient Evaluation of FPAA Implemented Analog Filters Using a MLS System Analyzer. , 2009, , .		3
86	Performance Evaluation of a Communication Protocol for Vital Signs Sensors Used for the Monitoring of Athletes. International Journal of Distributed Sensor Networks, 2014, 10, 453182.	1.3	3
87	Physiological parameters monitoring of fire-fighters by means of a wearable wireless sensor system. IOP Conference Series: Materials Science and Engineering, 2016, 108, 012011.	0.3	3
88	Criticality in a hybrid spin model with Fermi–Dirac statistics. Physica A: Statistical Mechanics and Its Applications, 2021, 577, 126073.	1.2	3
89	Navigation System of an Unmanned Boat for Autonomous Analyses of Water Quality. Elektronika Ir Elektrotechnika, 2013, 19, .	0.4	3
90	Post-spontaneous-symmetry-breaking power-laws after a very strong earthquake: Indication for the preparation of a new strong earthquake or not?. Physica A: Statistical Mechanics and Its Applications, 2022, 589, 126607.	1.2	3

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91	On the chaotic nature of random telegraph noise in unipolar RRAM memristor devices. Chaos, Solitons and Fractals, 2022, 160, 112224.	2.5	3
92	An alternative two-port feedback analysis approach. , 0, , .		2
93	Phase Spectral Processing for improved Time-Domain Soft Microphone based Noise Estimation. Proceedings of Meetings on Acoustics, 2008, , .	0.3	2
94	High-Level Sound Classification in the ESOUNDMAPS Project. Key Engineering Materials, 2015, 644, 83-86.	0.4	2
95	Diffraction-like stratified magnetic field in a device of circular rings. Journal of Applied Physics, 2021, 129, .	1.1	2
96	Detecting Apnea/Hypopnea Events Time Location from Sound Recordings for Patients with Severe or Moderate Sleep Apnea Syndrome. Applied Sciences (Switzerland), 2021, 11, 6888.	1.3	2
97	Can high-frequency ECG fluctuations differentiate between healthy and myocardial infarction cases?. Biomedical Engineering Advances, 2021, 2, 100011.	2.2	2
98	Effect of soil loading/unloading on its acoustic behavior. , 2020, 67, .		2
99	Application of the method of parallel trajectories on modeling the dynamics of COVID-19 third wave. Chaos, 2022, 32, 011103.	1.0	2
100	The ALICE Collaboration. Nuclear Physics A, 2013, 904-905, 1033c-1040c.	0.6	1
101	A Wireless Acoustic Sensor Network for environmental monitoring based on flexible hardware nodes. , 2015, , .		1
102	A Smart Sensor Platform for Greenhouse Applications. Key Engineering Materials, 0, 644, 92-95.	0.4	1
103	Communication protocols for vital signs sensors used for the monitoring of athletes. , 2016, , 127-143.		1
104	An Exploratory Study of Geospace Perturbations Using Financial Analysis Tools in the Context of Complex Systems. Geosciences (Switzerland), 2021, 11, 239.	1.0	1
105	A Real-Time Remote Monitoring of Water Quality by Means of a Wireless Sensor Network. Sensor Letters, 2014, 12, 1414-1421.	0.4	1
106	Design Considerations for an Environmental Monitoring Wireless Acoustic Sensor Network. Sensor Letters, 2015, 13, 549-555.	0.4	1
107	Implementing a Trust and Reputation Model for Robotic Sensor Networks. Elektronika Ir Elektrotechnika, 2013, 19, .	0.4	1
108	A Real-Time Snore Detector Using Neural Networks and Selected Sound Features. Engineering Proceedings, 2021, 11, .	0.4	1

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109	A hybrid artificial neural network for the generation of critical fluctuations and inter-spike intervals. Chaos, Solitons and Fractals, 2022, 159, 112115.	2.5	1
110	Building a low-cost network for power-quality monitoring with open-source-hardware nodes. , 2010, , .		0
111	Assessment of military intercom headsets for maximum voice reproduction level in high noise conditions. Applied Acoustics, 2013, 74, 870-881.	1.7	0
112	On the Efficiency of the Shortened Error Correcting Codes. International Journal of Electrical Engineering and Education, 2013, 50, 201-212.	0.4	0
113	A socially-intelligent multi-robot service team for in-home monitoring. , 2014, , .		0
114	Analyzing the Water Budgets of Reservoirs by Using Autonomous Mini Boats. Key Engineering Materials, 2014, 605, 51-54.	0.4	0
115	Characterization of Thermochromic Fibersâ€™ Response to Temperature Change. Key Engineering Materials, 0, 644, 74-77.	0.4	0
116	5th International Conference on Materials and Applications for Sensors and Transducers (IC-MAST2015). IOP Conference Series: Materials Science and Engineering, 2016, 108, 011001.	0.3	0
117	Sound-maps of environmentally sensitive areas constructed from Wireless Acoustic Sensors Network data. IOP Conference Series: Materials Science and Engineering, 2016, 108, 012012.	0.3	0
118	Investigation of acoustic emissions and pressure stimulated currents detected during bending of restored marble epistyles within the frame of log-periodic power-law models. Procedia Structural Integrity, 2018, 10, 319-325.	0.3	0
119	Modelling acoustic and electric signals emitted during structural tests in terms of logâ€periodic powerâ€law models. Material Design and Processing Communications, 2020, 2, e134.	0.5	0
120	Ï• 4 Solitons in Kirchhoff Wave Equation. Springer Optimization and Its Applications, 2021, , 71-80.	0.6	0
121	Engendering self-similarity in Boson field by a natural feedback process. Physica Scripta, 2021, 96, 125211.	1.2	0
122	Glass Covered Magnetic Micro-Wires Operating in the Domain Wall Nucleation and Propagation Sensing Mode for Stress Detection in FRP Composite Structures. Sensor Letters, 2014, 12, 1481-1487.	0.4	0
123	Budget Analysis for Water Reservoirs Using an Autonomous Sensor-Equipped Mini Boat. Sensor Letters, 2015, 13, 543-548.	0.4	0
124	Breathing sound detector as a means to identify possible apneic periods from tracheal sound recordings. , 0, , .		0