

# Nicholas V Sarlis

## List of Publications by Year in descending order

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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	A new method of nowcasting extreme cosmic ray events. <i>Remote Sensing Letters</i> , 2023, 14, 576-584.	0.6	11
2	Theoretical investigation of nitrogen-vacancy defects in silicon. <i>AIP Advances</i> , 2022, 12, .	0.6	4
3	Thermodynamics of Point Defects in Solids and Relation with the Bulk Properties: Recent Results. <i>Crystals</i> , 2022, 12, 686.	1.0	9
4	Order Parameter and Entropy of Seismicity in Natural Time before Major Earthquakes: Recent Results. <i>Geosciences (Switzerland)</i> , 2022, 12, 225.	1.0	13
5	Natural time analysis of acoustic emissions before fracture: Results compatible with the Bak-Tang-Wiesenfeld model. <i>Europhysics Letters</i> , 2022, 139, 12004.	0.7	4
6	Scaling Behavior of Peat Properties during the Holocene: A Case Study from Central European Russia. <i>Land</i> , 2022, 11, 862.	1.2	7
7	Similarity of fluctuations in critical systems: Acoustic emissions observed before fracture. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2021, 566, 125622.	1.2	7
8	Substitutional carbon-dioxygen center in irradiated silicon. <i>Materials Science in Semiconductor Processing</i> , 2021, 127, 105661.	1.9	1
9	Shooting solitaries due to small-world connectivity in leaky integrate-and-fire networks. <i>Chaos</i> , 2021, 31, 083129.	1.0	4
10	10.1063/5.0055163.1., 2021, , .		0
11	Remote sensing natural time analysis of heartbeat data by means of a portable photoplethysmography device. <i>International Journal of Remote Sensing</i> , 2021, 42, 2292-2302.	1.3	9
12	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. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10093.	1.3	18
13	The unusual case of the ultra-deep 2015 Ogasawara earthquake (MW7.9): Natural time analysis. <i>Europhysics Letters</i> , 2021, 135, 49002.	0.7	5
14	Estimating the Epicenter of a Future Strong Earthquake in Southern California, Mexico, and Central America by Means of Natural Time Analysis and Earthquake Nowcasting. <i>Entropy</i> , 2021, 23, 1658.	1.1	20
15	Detrended fluctuation analysis of seismicity and order parameter fluctuations before the M7.1 Ridgecrest earthquake. <i>Natural Hazards</i> , 2020, 100, 697-711.	1.6	18
16	Fracture analysis of typical construction materials in natural time. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 547, 123831.	1.2	19
17	Natural Time Analysis of Seismicity within the Mexican Flat Slab before the M7.1 Earthquake on 19 September 2017. <i>Entropy</i> , 2020, 22, 730.	1.1	17
18	Applying the cB <sup>1</sup> thermodynamical model to LiF using its equation of state obtained from high pressure diamond anvil cell measurements. <i>Solid State Ionics</i> , 2020, 354, 115404.	1.3	7

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19	Nowcasting Avalanches as Earthquakes and the Predictability of Strong Avalanches in the Olami-Feder-Christensen Model. <i>Entropy</i> , 2020, 22, 1228.	1.1	28
20	The Interstitial Carbonâ€“Dioxygen Center in Irradiated Silicon. <i>Crystals</i> , 2020, 10, 1005.	1.0	3
21	Natural Time Analysis: The Area under the Receiver Operating Characteristic Curve of the Order Parameter Fluctuations Minima Preceding Major Earthquakes. <i>Entropy</i> , 2020, 22, 583.	1.1	26
22	Fluctuations of the entropy change under time reversal: Further investigations on identifying the occurrence time of an impending major earthquake. <i>Europhysics Letters</i> , 2020, 130, 29001.	0.7	33
23	Similarity of fluctuations of acoustic emissions in natural time. <i>Procedia Structural Integrity</i> , 2020, 25, 195-200.	0.3	3
24	Precursory variations of Tsallis non-extensive statistical mechanics entropic index associated with the M9 Tohoku earthquake in 2011. <i>European Physical Journal: Special Topics</i> , 2020, 229, 851-859.	1.2	8
25	On the Statistical Significance of the Variability Minima of the Order Parameter of Seismicity by Means of Event Coincidence Analysis. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 662.	1.3	17
26	Self-organized criticality and earthquake predictability: A long-standing question in the light of natural time analysis. <i>Europhysics Letters</i> , 2020, 132, 29001.	0.7	43
27	Minima of the fluctuations of the order parameter of seismicity and earthquake networks based on similar activity patterns. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 527, 121293.	1.2	18
28	Phenomena preceding major earthquakes interconnected through a physical model. <i>Annales Geophysicae</i> , 2019, 37, 315-324.	0.6	40
29	Natural time analysis: Important changes of the order parameter of seismicity preceding the 2011 M9 Tohoku earthquake in Japan. <i>Europhysics Letters</i> , 2019, 125, 69001.	0.7	18
30	Interconnection of a thermodynamical model for point defect parameters in solids with the dynamical theory of diffusion. <i>Solid State Ionics</i> , 2019, 335, 82-85.	1.3	10
31	Identifying the Occurrence Time of the Deadly Mexico M8.2 Earthquake on 7 September 2017. <i>Entropy</i> , 2019, 21, 301.	1.1	12
32	Natural Time Analysis: Results Related to Two Earthquakes in Greece during 2019. <i>Proceedings (mdpi)</i> , 2019, 24, 20.	0.2	2
33	A Prototype Photoplethysmography Electronic Device that Distinguishes Congestive Heart Failure from Healthy Individuals by Applying Natural Time Analysis. <i>Electronics (Switzerland)</i> , 2019, 8, 1288.	1.8	30
34	Identifying the occurrence time of an impending major earthquake by means of the fluctuations of the entropy change under time reversal. <i>Europhysics Letters</i> , 2019, 128, 49001.	0.7	6
35	Investigation of the temporal correlations between earthquake magnitudes before the Mexico M8.2 earthquake on 7 September 2017. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 517, 475-483.	1.2	13
36	On the association between the recent episode of the quasi-biennial oscillation and the strong El NiÃ±o event. <i>Theoretical and Applied Climatology</i> , 2018, 133, 569-577.	1.3	15

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37	Study in Natural Time of Geoelectric Field and Seismicity Changes Preceding the Mw6.8 Earthquake on 25 October 2018 in Greece. <i>Entropy</i> , 2018, 20, 882.	1.1	16
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. <i>Europhysics Letters</i> , 2018, 124, 29001.	0.7	39
39	Tsallis Entropy Index $q$ and the Complexity Measure of Seismicity in Natural Time under Time Reversal before the M9 Tohoku Earthquake in 2011. <i>Entropy</i> , 2018, 20, 757.	1.1	36
40	Statistical Significance of Earth's Electric and Magnetic Field Variations Preceding Earthquakes in Greece and Japan Revisited. <i>Entropy</i> , 2018, 20, 561.	1.1	26
41	Natural time analysis: On the deadly Mexico M8.2 earthquake on 7 September 2017. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 506, 625-634.	1.2	40
42	Natural Time Analysis of Seismic Time Series. , 2018, , 199-235.		3
43	The Complexity Measures Associated with the Fluctuations of the Entropy in Natural Time before the Deadly Mexico M8.2 Earthquake on 7 September 2017. <i>Entropy</i> , 2018, 20, 477.	1.1	32
44	Micro-scale, mid-scale, and macro-scale in global seismicity identified by empirical mode decomposition and their multifractal characteristics. <i>Scientific Reports</i> , 2018, 8, 9206.	1.6	33
45	Estimation of multifractality based on natural time analysis. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 512, 153-164.	1.2	13
46	Comparison of the R-R intervals in ECG and Oximeter signals to be used in complexity measures of Natural Time Analysis. , 2018, , .		4
47	Seismic electric signals in seismic prone areas. <i>Earthquake Science</i> , 2018, 31, 44-51.	0.4	15
48	Identifying the occurrence time of an impending major earthquake: a review. <i>Earthquake Science</i> , 2017, 30, 209-218.	0.4	33
49	M W9 Tohoku earthquake in 2011 in Japan: precursors uncovered by natural time analysis. <i>Earthquake Science</i> , 2017, 30, 183-191.	0.4	8
50	Entropy in Natural Time and the Associated Complexity Measures. <i>Entropy</i> , 2017, 19, 177.	1.1	11
51	An Application of the Coherent Noise Model for the Prediction of Aftershock Magnitude Time Series. <i>Complexity</i> , 2017, 2017, 1-27.	0.9	12
52	A tentative model for the explanation of Båth law using the order parameter of seismicity in natural time. <i>Earthquake Science</i> , 2016, 29, 311-319.	0.4	7
53	Bulk moduli of $Pb_{1-x}S_xSe_1-x$ , $Pb_{1-x}S_xTe_1-x$ and $Pb_{1-x}S_xTe_1-x$ from the combination of the cB model with the modified Born theory compared to generalized gradient approximation. <i>Modern Physics Letters B</i> , 2016, 30, 1650409.	1.0	3
54	Pressure and temperature dependence of the oxygen self-diffusion activation volume in UO2 by a thermodynamical model. <i>Solid State Ionics</i> , 2016, 290, 121-123.	1.3	14

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55	On the Motivation and Foundation of Natural Time Analysis: Useful Remarks. Acta Geophysica, 2016, 64, 841-852.	1.0	9
56	On the progress of the 2015–2016 El Niño event. Atmospheric Chemistry and Physics, 2016, 16, 2007-2011.	1.9	56
57	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
58	Estimating the Compressibility of Osmium from Recent Measurements of Ir–Os Alloys under High Pressure. Journal of Physical Chemistry A, 2016, 120, 1601-1604.	1.1	15
59	Minima of the fluctuations of the order parameter of global seismicity. Chaos, 2015, 25, 063110.	1.0	17
60	Identifying the occurrence time of an impending mainshock: a very recent case. Earthquake Science, 2015, 28, 215-222.	0.4	13
61	On the scaling of the solar incident flux. Atmospheric Chemistry and Physics, 2015, 15, 7301-7306.	1.9	23
62	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
63	Change of the entropy in natural time under time reversal: Complexity measures upon change of scale. Europhysics Letters, 2015, 109, 18002.	0.7	33
64	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
65	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
66	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
67	Visualization of the significance of Receiver Operating Characteristics based on confidence ellipses. Computer Physics Communications, 2014, 185, 1172-1176.	3.0	26
68	Seismic Electric Signals: An additional fact showing their physical interconnection with seismicity. Tectonophysics, 2013, 589, 116-125.	0.9	127
69	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
70	On the recent seismic activity in North-Eastern Aegean Sea including the $M_w$ 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
71	Natural time analysis of the Centennial Earthquake Catalog. Chaos, 2012, 22, 023123.	1.0	37
72	Predictability of the coherent-noise model and its applications. Physical Review E, 2012, 85, 051136.	0.8	8

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73	Remarkable changes in the distribution of the order parameter of seismicity before mainshocks. Europhysics Letters, 2012, 100, 39002.	0.7	17
74	Scale-specific order parameter fluctuations of seismicity before mainshocks: Natural time and Detrended Fluctuation Analysis. Europhysics Letters, 2012, 99, 59001.	0.7	41
75	Order parameter fluctuations in natural time and $\alpha$ -value variation before large earthquakes. Natural Hazards and Earth System Sciences, 2012, 12, 3473-3481.	1.5	28
76	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
77	Identifying long-range correlated signals upon significant periodic data loss. Tectonophysics, 2011, 503, 189-194.	0.9	8
78	The change of the entropy in natural time under time-reversal in the Olami-Feder-Christensen earthquake model. Tectonophysics, 2011, 513, 49-53.	0.9	49
79	Scale-specific order parameter fluctuations of seismicity in natural time before mainshocks. Europhysics Letters, 2011, 96, 59002.	0.7	99
80	Similarity of fluctuations in systems exhibiting Self-Organized Criticality. Europhysics Letters, 2011, 96, 28006.	0.7	42
81	Magnitude correlations in global seismicity. Physical Review E, 2011, 84, 022101.	0.8	24
82	Natural Time Analysis: The New View of Time. , 2011, , .		168
83	Introduction to Seismic Electric Signals. , 2011, , 3-115.		15
84	Entropy in Natural Time. , 2011, , 159-187.		2
85	Natural Time Analysis of Electrocardiograms. , 2011, , 381-435.		2
86	Natural Time Analysis of Seismicity. , 2011, , 247-289.		0
87	Natural Time. Background. , 2011, , 119-157.		0
88	Natural Time Analysis of Dynamical Models. , 2011, , 341-380.		1
89	Natural Time Investigation of the Effect of Significant Data Loss on Identifying Seismic Electric Signals. , 2011, , 237-245.		0
90	Identifying the Occurrence Time of an Impending Mainshock. , 2011, , 291-339.		0

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91	Natural Time Analysis of Seismic Electric Signals. , 2011, , 191-235.		1
92	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
93	Order parameter fluctuations of seismicity in natural time before and after mainshocks. Europhysics Letters, 2010, 91, 59001.	0.7	72
94	Natural-time analysis of critical phenomena: The case of seismicity. Europhysics Letters, 2010, 92, 29002. 40		
95	Nonextensivity and natural time: The case of seismicity. Physical Review E, 2010, 82, 021110.	0.8	114
96	Multiplicative cascades and seismicity in natural time. Physical Review E, 2009, 80, 022102.	0.8	42
97	Detrended fluctuation analysis of the magnetic and electric field variations that precede rupture. Chaos, 2009, 19, 023114.	1.0	88
98	Heart rate variability in natural time and $1/f$ noise. Europhysics Letters, 2009, 87, 18003.	0.7	32
99	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
100	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
101	Electric pulses some minutes before earthquake occurrences. Applied Physics Letters, 2007, 90, 064104.	1.5	17
102	Identifying sudden cardiac death risk and specifying its occurrence time by analyzing electrocardiograms in natural time. Applied Physics Letters, 2007, 91, .	1.5	86
103	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
104	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
105	Magnetotelluric 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
106	Additional evidence on some relationship between Seismic Electric Signals (SES) and earthquake focal mechanism. Tectonophysics, 2006, 412, 279-288.	0.9	23
107	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
108	Recent Seismic Electric Signals (SES) activities in Greece. Acta Geophysica, 2006, 54, 158-164.	1.0	8

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109	Entropy of seismic electric signals: Analysis in natural time under time reversal. Physical Review E, 2006, 73, 031114.	0.8	135
110	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
111	Flux avalanches in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> films and rice piles: Natural time domain analysis. Physical Review B, 2006, 73, .	1.1	32
112	Comment on "Electrical conductivity and crustal structure beneath the central Hellenides around the Gulf of Corinth (Greece) and their relationship with the seismotectonics" by Phamet al.. Geophysical Journal International, 2005, 162, 332-336.	1.0	1
113	Some properties of the entropy in the natural time. Physical Review E, 2005, 71, 032102.	0.8	132
114	Similarity of fluctuations in correlated systems: The case of seismicity. Physical Review E, 2005, 72, 041103.	0.8	175
115	Origin of the Usefulness of the Natural-Time Representation of Complex Time Series. Physical Review Letters, 2005, 94, 170601.	2.9	92
116	Time-difference between the electric field components of signals prior to major earthquakes. Applied Physics Letters, 2005, 86, 194101.	1.5	8
117	Natural entropy fluctuations discriminate similar-looking electric signals emitted from systems of different dynamics. Physical Review E, 2005, 71, 011110.	0.8	95
118	Entropy in the natural time domain. Physical Review E, 2004, 70, 011106.	0.8	108
119	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
120	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
121	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
122	Electric Fields that "Arrive" before the Time Derivative of the Magnetic Field prior to Major Earthquakes. Physical Review Letters, 2003, 91, 148501.	2.9	114
123	Attempt to distinguish electric signals of a dichotomous nature. Physical Review E, 2003, 68, 031106.	0.8	177
124	Long-range correlations in the electric signals that precede rupture: Further investigations. Physical Review E, 2003, 67, 021109.	0.8	184
125	Long-range correlations in the electric signals that precede rupture. Physical Review E, 2002, 66, 011902.	0.8	301
126	Magnetic field near the outcrop of an almost horizontal conductive sheet. Journal of Geodynamics, 2002, 33, 463-476.	0.7	33



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127	Magnetic field variations associated with SES. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2001, 77, 87-92.	1.6	14
128	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
129	Electric Polarization Related to Defects and Transmission of the Related Signals. International Geophysics, 2001, 76, 463-499.	0.6	0
130	Interconnection of defect parameters and stress-induced electric signals in ionic crystals. Physical Review B, 1999, 59, 24-27.	1.1	92
131	Shoulder at the 887 cm <sup>-1</sup> infrared band in neutron irradiated Si. Journal of Applied Physics, 1999, 85, 8074-8078.	1.1	3
132	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
133	A review on the statistical significance of VAN predictions. Physics and Chemistry of the Earth, 1999, 24, 111-114.	0.6	1
134	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
135	Numerical model of the selectivity effect and the $\hat{\Gamma}^{\nu}/L$ criterion. Geophysical Research Letters, 1999, 26, 3245-3248.	1.5	65
136	Numerical model of the selectivity effect and the $\hat{\Gamma}^{\nu}/L$ criterion. Geophysical Research Letters, 1999, 26, 3245-3248.	1.5	10
137	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
138	Infrared studies of defects formed during postirradiation anneals of Czochralski silicon. Journal of Applied Physics, 1998, 84, 3569-3573.	1.1	8
139	Transmission of stress induced electric signals in dielectric media. Journal of Applied Physics, 1998, 83, 60-70.	1.1	105
140	Coherent states for the two-dimensional magnetic-electric Euclidean group MEE(2). Physical Review B, 1997, 56, 9406-9413.	1.1	5
141	Origin of infrared bands in neutron-irradiated silicon. Journal of Applied Physics, 1997, 81, 1645-1650.	1.1	34
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	Isochronal Annealing Studies of the Oxygen-Vacancy Centres in Neutron-Irradiated Si. Physica Status Solidi A, 1997, 163, 325-335.	1.7	16
144	Isochronal Annealing Studies of the Oxygen-Vacancy Centres in Neutron-Irradiated Si., 1997, 163, 325.		1

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145	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
146	Reply to "Rebuttal to Reply by Varotsos and Lazaridou: Towards plainly successful prediction," by Paul W. Burton. Geophysical Research Letters, 1996, 23, 1389-1390.	1.5	5
147	Magnetic-electric two-dimensional Euclidean group. Physical Review B, 1996, 54, 5334-5339.	1.1	5
148	Precursor defect to the vacancy-dioxygen center in Si. Physical Review B, 1996, 53, 6900-6903.	1.1	32
149	Infrared bands association with multivacancy-oxygen defects in silicon. , 0, , .		0
150	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