

# Reik Donner

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/968386/publications.pdf>

Version: 2024-02-01

141  
papers

5,723  
citations

101543

36  
h-index

85541

71  
g-index

188  
all docs

188  
docs citations

188  
times ranked

4540  
citing authors

#	ARTICLE	IF	CITATIONS
1	Changes in extreme sea-levels in the Baltic Sea. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2022, 66, 20921.	1.7	12
2	Generalization of Higuchi's fractal dimension for multifractal analysis of time series with limited length. <i>Nonlinear Dynamics</i> , 2022, 108, 417-431.	5.2	5
3	Concurrent Effects between Geomagnetic Storms and Magnetospheric Substorms. <i>Universe</i> , 2022, 8, 226.	2.5	7
4	Partial event coincidence analysis for distinguishing direct and indirect coupling in functional network construction. <i>Chaos</i> , 2022, 32, 063134.	2.5	2
5	Glossary on atmospheric electricity and its effects on biology. <i>International Journal of Biometeorology</i> , 2021, 65, 5-29.	3.0	9
6	Differential Imprints of Distinct ENSO Flavors in Global Patterns of Very Low and High Seasonal Precipitation. <i>Frontiers in Climate</i> , 2021, 3, .	2.8	10
7	Spatiotemporal patterns of synchronous heavy rainfall events in East Asia during the Baiu season. <i>Earth System Dynamics</i> , 2021, 12, 295-312.	7.1	12
8	Editorial: Advanced Time Series Analysis in Geosciences. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	1
9	A climate network perspective on the intertropical convergence zone. <i>Earth System Dynamics</i> , 2021, 12, 353-366.	7.1	1
10	Characterizing dynamical transitions by statistical complexity measures based on ordinal pattern transition networks. <i>Chaos</i> , 2021, 31, 033127.	2.5	12
11	Causal coupling inference from multivariate time series based on ordinal partition transition networks. <i>Nonlinear Dynamics</i> , 2021, 105, 555-578.	5.2	8
12	Spatial organization of connectivity in functional climate networks describing event synchrony of heavy precipitation. <i>European Physical Journal: Special Topics</i> , 2021, 230, 3045-3063.	2.6	4
13	Small-scale Induced Large-scale Transitions in Solar Wind Magnetic Field. <i>Astrophysical Journal Letters</i> , 2021, 914, L6.	8.3	5
14	Multiscale fractal dimension analysis of a reduced order model of coupled ocean-atmosphere dynamics. <i>Earth System Dynamics</i> , 2021, 12, 837-855.	7.1	8
15	Evolving climate network perspectives on global surface air temperature effects of ENSO and strong volcanic eruptions. <i>European Physical Journal: Special Topics</i> , 2021, 230, 3075-3100.	2.6	6
16	Characteristic signatures of Northern Hemisphere blocking events in a Lagrangian flow network representation of the atmospheric circulation. <i>Chaos</i> , 2021, 31, 093128.	2.5	0
17	The effect of time series distance functions on functional climate networks. <i>European Physical Journal: Special Topics</i> , 2021, 230, 2973-2998.	2.6	6
18	Nonlinear time series analysis of palaeoclimate proxy records. <i>Quaternary Science Reviews</i> , 2021, 274, 107245.	3.0	10

#	ARTICLE	IF	CITATIONS
19	Schumann resonance and cardiovascular hospital admission in the area of Granada, Spain: An event coincidence analysis approach. <i>Science of the Total Environment</i> , 2020, 705, 135813.	8.0	18
20	Regression-based distribution mapping for bias correction of climate model outputs using linear quantile regression. <i>Stochastic Environmental Research and Risk Assessment</i> , 2020, 34, 87-102.	4.0	7
21	Disentangling nonlinear geomagnetic variability during magnetic storms and quiescence by timescale dependent recurrence properties. <i>Journal of Space Weather and Space Climate</i> , 2020, 10, 25.	3.3	11
22	Fingerprint of volcanic forcing on the ENSO–Indian monsoon coupling. <i>Science Advances</i> , 2020, 6, .	10.3	39
23	Multiscale measures of phase-space trajectories. <i>Chaos</i> , 2020, 30, 123116.	2.5	10
24	Disentangling synchrony from serial dependency in paired-event time series. <i>Physical Review E</i> , 2020, 101, 052213.	2.1	9
25	Event synchrony measures for functional climate network analysis: A case study on South American rainfall dynamics. <i>Chaos</i> , 2020, 30, 033102.	2.5	21
26	Tropical and mid-latitude teleconnections interacting with the Indian summer monsoon rainfall: a theory-guided causal effect network approach. <i>Earth System Dynamics</i> , 2020, 11, 17-34.	7.1	29
27	An early-warning indicator for Amazon droughts exclusively based on tropical Atlantic sea surface temperatures. <i>Environmental Research Letters</i> , 2020, 15, 094087.	5.2	18
28	Dominant patterns of interaction between the tropics and mid-latitudes in boreal summer: causal relationships and the role of timescales. <i>Weather and Climate Dynamics</i> , 2020, 1, 519-539.	3.5	21
29	Nonlinear time series analysis by means of complex networks. <i>Scientia Sinica: Physica, Mechanica Et Astronomica</i> , 2020, 50, 010509.	0.4	2
30	Detecting dynamical anomalies in time series from different palaeoclimate proxy archives using windowed recurrence network analysis. <i>Nonlinear Processes in Geophysics</i> , 2020, 27, 261-275.	1.3	6
31	Characterizing Flows by Complex Network Methods. <i>Advances in Dynamics, Patterns, Cognition</i> , 2019, , 197-226.	0.3	8
32	Disentangling the multi-scale effects of sea-surface temperatures on global precipitation: A coupled networks approach. <i>Chaos</i> , 2019, 29, 063116.	2.5	21
33	Long-Lead Statistical Forecasts of the Indian Summer Monsoon Rainfall Based on Causal Precursors. <i>Weather and Forecasting</i> , 2019, 34, 1377-1394.	1.4	22
34	Areawise significance tests for windowed recurrence network analysis. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20190161.	2.1	3
35	Network inference from the timing of events in coupled dynamical systems. <i>Chaos</i> , 2019, 29, 083125.	2.5	9
36	Meridionally Extending Anomalous Wave Train over Asia During Breaks in the Indian Summer Monsoon. <i>Earth Systems and Environment</i> , 2019, 3, 353-366.	6.2	7

#	ARTICLE	IF	CITATIONS
37	Ordinal partition transition network based complexity measures for inferring coupling direction and delay from time series. <i>Chaos</i> , 2019, 29, 043111.	2.5	26
38	Correlating paleoclimate time series: Sources of uncertainty and potential pitfalls. <i>Quaternary Science Reviews</i> , 2019, 212, 69-79.	3.0	8
39	A Rigorous Statistical Assessment of Recent Trends in Intensity of Heavy Precipitation Over Germany. <i>Frontiers in Environmental Science</i> , 2019, 7, .	3.3	9
40	Recurrence-Based Quantification of Dynamical Complexity in the Earth's Magnetosphere at Geospace Storm Timescales. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 90-108.	2.4	23
41	Edge directionality properties in complex spherical networks. <i>Physical Review E</i> , 2019, 99, 012301.	2.1	11
42	Complex network approaches to nonlinear time series analysis. <i>Physics Reports</i> , 2019, 787, 1-97.	25.6	370
43	Common solar wind drivers behind magnetic storm-magnetospheric substorm dependency. <i>Scientific Reports</i> , 2018, 8, 16987.	3.3	29
44	Bilateral Trade Agreements and the Interconnectedness of Global Trade. <i>Frontiers in Physics</i> , 2018, 6, .	2.1	15
45	Recurrence threshold selection for obtaining robust recurrence characteristics in different embedding dimensions. <i>Chaos</i> , 2018, 28, 085720.	2.5	58
46	Temporal organization of magnetospheric fluctuations unveiled by recurrence patterns in the Dst index. <i>Chaos</i> , 2018, 28, 085716.	2.5	14
47	Phase space reconstruction for non-uniformly sampled noisy time series. <i>Chaos</i> , 2018, 28, 085702.	2.5	30
48	Atmospheric Teleconnections: Advanced Tools and Citizen Science. <i>Eos</i> , 2018, 99, .	0.1	0
49	Understanding and modeling space-time Holocene climate variability. <i>Past Global Change Magazine</i> , 2018, 26, 38-38.	0.1	1
50	Climatic risks and impacts in South Asia: extremes of water scarcity and excess. <i>Regional Environmental Change</i> , 2017, 17, 1569-1583.	2.9	65
51	Distributions of positive correlations in sectoral value added growth in the global economic network*. <i>European Physical Journal B</i> , 2017, 90, 1.	1.5	4
52	Introduction to Focus Issue: Complex network perspectives on flow systems. <i>Chaos</i> , 2017, 27, 035601.	2.5	12
53	Motif formation and industry specific topologies in the Japanese business firm network. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017, 2017, 053404.	2.3	12
54	Dynamical anomalies in terrestrial proxies of North Atlantic climate variability during the last 2 ka. <i>Climatic Change</i> , 2017, 143, 87-100.	3.6	5

#	ARTICLE	IF	CITATIONS
55	Validation practices for satellite-based Earth observation data across communities. <i>Reviews of Geophysics</i> , 2017, 55, 779-817.	23.0	137
56	Edge anisotropy and the geometric perspective on flow networks. <i>Chaos</i> , 2017, 27, 035802.	2.5	8
57	Spatio-temporal organization of dynamics in a two-dimensional periodically driven vortex flow: A Lagrangian flow network perspective. <i>Chaos</i> , 2017, 27, 035806.	2.5	16
58	A perturbation-theoretic approach to Lagrangian flow networks. <i>Chaos</i> , 2017, 27, 035813.	2.5	5
59	Multiple-node basin stability in complex dynamical networks. <i>Physical Review E</i> , 2017, 95, 032317.	2.1	74
60	Mapping and discrimination of networks in the complexity-entropy plane. <i>Physical Review E</i> , 2017, 96, 042304.	2.1	32
61	Rewiring hierarchical scale-free networks: Influence on synchronizability and topology. <i>Europhysics Letters</i> , 2017, 119, 30002.	2.0	9
62	Improved one-month lead-time forecasting of the SPI over Russia with pressure covariates based on the SLAV model. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017, 143, 2636-2649.	2.7	4
63	Zealotry effects on opinion dynamics in the adaptive voter model. <i>Physical Review E</i> , 2017, 96, 052315.	2.1	22
64	Hierarchical structures in Northern Hemispheric extratropical winter ocean-atmosphere interactions. <i>International Journal of Climatology</i> , 2017, 37, 3821-3836.	3.5	18
65	CoinCalc – A new R package for quantifying simultaneities of event series. <i>Computers and Geosciences</i> , 2017, 98, 64-72.	4.2	57
66	Recovery time after localized perturbations in complex dynamical networks. <i>New Journal of Physics</i> , 2017, 19, 103004.	2.9	12
67	Effects of the Lake Sobradinho Reservoir (Northeastern Brazil) on the Regional Climate. <i>Climate</i> , 2017, 5, 50.	2.8	12
68	Impacts of temperature extremes on European vegetation during the growing season. <i>Biogeosciences</i> , 2017, 14, 4891-4903.	3.3	35
69	Reconstructing Late Holocene North Atlantic atmospheric circulation changes using functional paleoclimate networks. <i>Climate of the Past</i> , 2017, 13, 1593-1608.	3.4	16
70	Long-term changes in the seasonality of Baltic sea level. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2016, 68, 30540.	1.7	9
71	Impact of temperature and precipitation extremes on the flowering dates of four German wildlife shrub species. <i>Biogeosciences</i> , 2016, 13, 5541-5555.	3.3	41
72	Advances in Time Series Analysis and Its Applications. <i>Mathematical Problems in Engineering</i> , 2016, 2016, 1-1.	1.1	0

#	ARTICLE	IF	CITATIONS
73	Meteorological Drivers of Extremes in Daily Stem Radius Variations of Beech, Oak, and Pine in Northeastern Germany: An Event Coincidence Analysis. <i>Frontiers in Plant Science</i> , 2016, 7, 733.	3.6	42
74	Disentangling regular and chaotic motion in the standard map using complex network analysis of recurrences in phase space. <i>Chaos</i> , 2016, 26, 023120.	2.5	15
75	Armed-conflict risks enhanced by climate-related disasters in ethnically fractionalized countries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 9216-9221.	7.1	280
76	Spatial network surrogates for disentangling complex system structure from spatial embedding of nodes. <i>Physical Review E</i> , 2016, 93, 042308.	2.1	30
77	A climate network-based index to discriminate different types of El Niño and La Niña. <i>Geophysical Research Letters</i> , 2016, 43, 7176-7185.	4.0	47
78	Event coincidence analysis for quantifying statistical interrelationships between event time series. <i>European Physical Journal: Special Topics</i> , 2016, 225, 471-487.	2.6	93
79	Complex Network Techniques for Climatological Data Analysis. , 2016, , 159-183.		16
80	Intrinsic vs. spurious long-range memory in high-frequency records of environmental radioactivity. <i>European Physical Journal: Special Topics</i> , 2015, 224, 741-762.	2.6	13
81	Optimal model-free prediction from multivariate time series. <i>Physical Review E</i> , 2015, 91, 052909.	2.1	29
82	An integrative quantifier of multistability in complex systems based on ecological resilience. <i>Scientific Reports</i> , 2015, 5, 16196.	3.3	51
83	Unified functional network and nonlinear time series analysis for complex systems science: The <code>pyunicorn</code> package. <i>Chaos</i> , 2015, 25, 113101.	2.5	84
84	Radon applications in geosciences – Progress & perspectives. <i>European Physical Journal: Special Topics</i> , 2015, 224, 597-603.	2.6	33
85	Non-linear regime shifts in Holocene Asian monsoon variability: potential impacts on cultural change and migratory patterns. <i>Climate of the Past</i> , 2015, 11, 709-741.	3.4	55
86	Analyzing long-term correlated stochastic processes by means of recurrence networks: Potentials and pitfalls. <i>Physical Review E</i> , 2015, 91, 022926.	2.1	13
87	Indications for a North Atlantic ocean circulation regime shift at the onset of the Little Ice Age. <i>Climate Dynamics</i> , 2015, 45, 3623-3633.	3.8	21
88	Temporal correlation patterns in pre-seismic electromagnetic emissions reveal distinct complexity profiles prior to major earthquakes. <i>Physics and Chemistry of the Earth</i> , 2015, 85-86, 44-55.	2.9	19
89	Complex network analysis helps to identify impacts of the El Niño Southern Oscillation on moisture divergence in South America. <i>Climate Dynamics</i> , 2015, 45, 619-632.	3.8	48
90	Complex Network Analysis of Recurrences. <i>Understanding Complex Systems</i> , 2015, , 101-163.	0.6	8

#	ARTICLE	IF	CITATIONS
91	A Network of Networks Perspective on Global Trade. PLoS ONE, 2015, 10, e0133310.	2.5	62
92	Long-term changes in the north-south asymmetry of solar activity: a nonlinear dynamics characterization using visibility graphs. Nonlinear Processes in Geophysics, 2014, 21, 1113-1126.	1.3	57
93	Regional and inter-regional effects in evolving climate networks. Nonlinear Processes in Geophysics, 2014, 21, 451-462.	1.3	18
94	Publisher's Note: Disentangling different types of El Niño episodes by evolving climate network analysis [Phys. Rev. E88, 052807 (2013)]. Physical Review E, 2014, 89, .	2.1	0
95	A Pedestrian Dynamics Based Approach to Autonomous Movement Control of Automatic Guided Vehicles. Lecture Notes in Production Engineering, 2013, , 175-187.	0.4	0
96	Testing time series irreversibility using complex network methods. Europhysics Letters, 2013, 102, 29902.	2.0	6
97	Recurrence networks from multivariate signals for uncovering dynamic transitions of horizontal oil-water stratified flows. Europhysics Letters, 2013, 103, 50004.	2.0	84
98	Statistical Mechanics and Information-Theoretic Perspectives on Complexity in the Earth System. Entropy, 2013, 15, 4844-4888.	2.2	85
99	Geometric signature of complex synchronisation scenarios. Europhysics Letters, 2013, 102, 30007.	2.0	24
100	Varved sediments of Lake Yoa (Ounianga Kebir, Chad) reveal progressive drying of the Sahara during the last 6100 years. Sedimentology, 2013, 60, 911-934.	3.1	57
101	Disentangling different types of El Niño episodes by evolving climate network analysis. Physical Review E, 2013, 88, 052807.	2.1	79
102	Testing time series irreversibility using complex network methods. Europhysics Letters, 2013, 102, 10004.	2.0	78
103	Correlation-based characterisation of time-varying dynamical complexity in the Earth's magnetosphere. Nonlinear Processes in Geophysics, 2013, 20, 965-975.	1.3	4
104	Power-laws in recurrence networks from dynamical systems. Europhysics Letters, 2012, 98, 48001.	2.0	24
105	Phase coherence and attractor geometry of chaotic electrochemical oscillators. Chaos, 2012, 22, 033130.	2.5	23
106	Analytical framework for recurrence network analysis of time series. Physical Review E, 2012, 85, 046105.	2.1	96
107	Geometric detection of coupling directions by means of inter-system recurrence networks. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3504-3513.	2.1	87
108	Spatial patterns of linear and nonparametric long-term trends in Baltic sea-level variability. Nonlinear Processes in Geophysics, 2012, 19, 95-111.	1.3	40

#	ARTICLE	IF	CITATIONS
109	Complexity Concepts and Non-Integer Dimensions in Climate and Paleoclimate Research. , 2012, , .		2
110	Geometric and dynamic perspectives on phase-coherent and noncoherent chaos. Chaos, 2012, 22, 013115.	2.5	12
111	Visibility graph analysis of geophysical time series: Potentials and possible pitfalls. Acta Geophysica, 2012, 60, 589-623.	2.0	101
112	RECURRENCE-BASED TIME SERIES ANALYSIS BY MEANS OF COMPLEX NETWORK METHODS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2011, 21, 1019-1046.	1.7	350
113	Identification of dynamical transitions in marine palaeoclimate records by recurrence network analysis. Nonlinear Processes in Geophysics, 2011, 18, 545-562.	1.3	59
114	Urban road networks " spatial networks with universal geometric features?. European Physical Journal B, 2011, 84, 563-577.	1.5	73
115	The geometry of chaotic dynamics " a complex network perspective. European Physical Journal B, 2011, 84, 653-672.	1.5	126
116	Nonlinear detection of paleoclimate-variability transitions possibly related to human evolution. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20422-20427.	7.1	208
117	Spatial Correlations of River Runoffs in a Catchment. , 2011, , 286-313.		2
118	Ambiguities in recurrence-based complex network representations of time series. Physical Review E, 2010, 81, 015101.	2.1	113
119	Recurrence networks"a novel paradigm for nonlinear time series analysis. New Journal of Physics, 2010, 12, 033025.	2.9	489
120	Potentials and limitations of RFID applications in packaging industry: a case study. International Journal of Manufacturing Technology and Management, 2010, 21, 225.	0.1	4
121	Identifying complex periodic windows in continuous-time dynamical systems using recurrence-based methods. Chaos, 2010, 20, 043130.	2.5	65
122	Dynamics of Supply Chains Under Mixed Production Strategies. Mathematics in Industry, 2010, , 527-533.	0.3	4
123	Complex network approach for recurrence analysis of time series. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 4246-4254.	2.1	501
124	Understanding the Earth as a Complex System " recent advances in data analysis and modelling in Earth sciences. European Physical Journal: Special Topics, 2009, 174, 1-9.	2.6	34
125	Analysis of complex networks associated to seismic clusters near the Itoiz reservoir dam. European Physical Journal: Special Topics, 2009, 174, 181-195.	2.6	21
126	Emergence of Synchronization in Transportation Networks with Biologically Inspired Decentralized Control. Studies in Computational Intelligence, 2009, , 237-275.	0.9	4



#	ARTICLE	IF	CITATIONS
127	Nonlinear characterization of the performance of production and logistics networks. Journal of Manufacturing Systems, 2008, 27, 84-99.	13.9	31
128	Anticipative control of switched queueing systems. European Physical Journal B, 2008, 63, 341-347.	1.5	30
129	Multivariate analysis of spatially heterogeneous phase synchronisation in complex systems: application to self-organised control of material flows in networks. European Physical Journal B, 2008, 63, 349-361.	1.5	12
130	Symbolic recurrence plots: A new quantitative framework for performance analysis of manufacturing networks. European Physical Journal: Special Topics, 2008, 164, 85-104.	2.6	30
131	Phase Coherence Analysis of Decadal-Scale Sunspot Activity on Both Solar Hemispheres. Lecture Notes in Earth Sciences, 2008, , 355-385.	0.5	8
132	Complexity of Spatio-Temporal Correlations in Japanese Air Temperature Records. Lecture Notes in Earth Sciences, 2008, , 125-154.	0.5	6
133	Mechanisms of Instability in Small-Scale Manufacturing Networks. , 2008, , 161-168.		1
134	TEMPORARY DIMENSIONS OF MULTIVARIATE DATA FROM PALEOCLIMATE RECORDS – A NOVEL MEASURE FOR DYNAMIC CHARACTERIZATION OF LONG-TERM CLIMATE CHANGE. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 3685-3689.	1.7	7
135	HIERARCHICAL MODELING OF A FORCED ROBERTS DYNAMO. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 3589-3593.	1.7	1
136	Scale-resolved phase coherence analysis of hemispheric sunspot activity: a new look at the north-south asymmetry. Astronomy and Astrophysics, 2007, 475, L33-L36.	5.1	76
137	Characterisation of long-term climate change by dimension estimates of multivariate palaeoclimatic proxy data. Nonlinear Processes in Geophysics, 2006, 13, 485-497.	1.3	15
138	Low-dimensional dynamo modelling and symmetry-breaking bifurcations. Physica D: Nonlinear Phenomena, 2006, 223, 151-162.	2.8	6
139	Linear and nonlinear characterization of surfaces from a laser beam melt ablation process. Journal Physics D: Applied Physics, 2006, 39, 1405-1412.	2.8	5
140	An Approach to a Process Model of Laser Beam Melt Ablation Using Methods of Linear and Nonlinear Data Analysis. , 2005, , 453-468.		3
141	Coupled network analysis revealing global monthly scale co-variability patterns between sea-surface temperatures and precipitation in dependence on the ENSO state. European Physical Journal: Special Topics, 0, , 1.	2.6	5