

Boris Podobnik

List of Publications by Year in descending order

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95
papers

6,492
citations

136950

32
h-index

64796

79
g-index

97
all docs

97
docs citations

97
times ranked

2833
citing authors

#	ARTICLE	IF	CITATIONS
1	Detrended Cross-Correlation Analysis: A New Method for Analyzing Two Nonstationary Time Series. <i>Physical Review Letters</i> , 2008, 100, 084102.	7.8	1,206
2	Cross-correlations between volume change and price change. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 22079-22084.	7.1	590
3	Statistical tests for power-law cross-correlated processes. <i>Physical Review E</i> , 2011, 84, 066118.	2.1	389
4	Quantifying cross-correlations using local and global detrending approaches. <i>European Physical Journal B</i> , 2009, 71, 243-250.	1.5	380
5	Detrended cross-correlation analysis for non-stationary time series with periodic trends. <i>Europhysics Letters</i> , 2011, 94, 18007.	2.0	290
6	Spontaneous recovery in dynamical networks. <i>Nature Physics</i> , 2014, 10, 34-38.	16.7	251
7	Social physics. <i>Physics Reports</i> , 2022, 948, 1-148.	25.6	231
8	Punishment diminishes the benefits of network reciprocity in social dilemma experiments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 30-35.	7.1	213
9	Time-lag cross-correlations in collective phenomena. <i>Europhysics Letters</i> , 2010, 90, 68001.	2.0	188
10	Detrended partial cross-correlation analysis of two nonstationary time series influenced by common external forces. <i>Physical Review E</i> , 2015, 91, 062816.	2.1	178
11	Common scaling patterns in intertrade times of U. S. stocks. <i>Physical Review E</i> , 2004, 69, 056107.	2.1	149
12	Calling patterns in human communication dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 1600-1605.	7.1	147
13	Modeling long-range cross-correlations in two-component ARFIMA and FIARCH processes. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2008, 387, 3954-3959.	2.6	130
14	Linking agent-based models and stochastic models of financial markets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 8388-8393.	7.1	127
15	Power-law autocorrelated stochastic processes with long-range cross-correlations. <i>European Physical Journal B</i> , 2007, 56, 47-52.	1.5	118
16	Quantifying and modeling long-range cross correlations in multiple time series with applications to world stock indices. <i>Physical Review E</i> , 2011, 83, 046121.	2.1	109
17	$\langle mml:math \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si12.gif" display="inline" overflow="scroll"} \rangle \langle mml:mn \rangle 1 \langle /mml:mn \rangle \langle mml:mo \rangle / \langle /mml:mo \rangle \langle mml:mi \rangle f \langle /mml:mi \rangle \langle /mml:math \rangle$ behavior in cross-correlations between absolute returns in a US market. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2012, 391, 2860-2866.	2.6	91
18	Scaling properties of extreme price fluctuations in Bitcoin markets. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 510, 400-406.	2.6	90

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19	Fractionally integrated process for transition economics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006, 362, 465-470.	2.6	89
20	Influence of corruption on economic growth rate and foreign investment. <i>European Physical Journal B</i> , 2008, 63, 547-550.	1.5	88
21	Changes in Cross-Correlations as an Indicator for Systemic Risk. <i>Scientific Reports</i> , 2012, 2, 888.	3.3	84
22	Systemic risk and spatiotemporal dynamics of the US housing market. <i>Scientific Reports</i> , 2014, 4, 3655.	3.3	77
23	Fractionally integrated process with power-law correlations in variables and magnitudes. <i>Physical Review E</i> , 2005, 72, 026121.	2.1	74
24	Bankruptcy risk model and empirical tests. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 18325-18330.	7.1	71
25	Skill complementarity enhances heterophily in collaboration networks. <i>Scientific Reports</i> , 2016, 6, 18727.	3.3	71
26	Asymmetric Levy flight in financial ratios. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 17883-17888.	7.1	66
27	Quantitative relations between corruption and economic factors. <i>European Physical Journal B</i> , 2007, 56, 157-166.	1.5	64
28	Systems with correlations in the variance: Generating power law tails in probability distributions. <i>Europhysics Letters</i> , 2000, 50, 711-717.	2.0	54
29	Scale-invariant truncated Lévy process. <i>Europhysics Letters</i> , 2000, 52, 491-497.	2.0	51
30	Systemic risk and causality dynamics of the world international shipping market. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 415, 43-53.	2.6	44
31	Power-law correlated processes with asymmetric distributions. <i>Physical Review E</i> , 2005, 71, 025104.	2.1	43
32	Size-dependent standard deviation for growth rates: Empirical results and theoretical modeling. <i>Physical Review E</i> , 2008, 77, 056102.	2.1	38
33	Comparison between response dynamics in transition economies and developed economies. <i>Physical Review E</i> , 2010, 82, 046104.	2.1	32
34	Does the Efficient Market Hypothesis Hold?: Evidence from Six Transition Economies. <i>Eastern European Economics</i> , 2005, 43, 79-103.	1.4	28
35	Stochastic model of financial markets reproducing scaling and memory in volatility return intervals. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 462, 1091-1102.	2.6	28
36	The q -dependent detrended cross-correlation analysis of stock market. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2018, 2018, 023402.	2.3	28

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37	Time evolution of stochastic processes with correlations in the variance: stability in power-law tails of distributions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001, 300, 300-309.	2.6	26
38	Zipf rank approach and cross-country convergence of incomes. <i>Europhysics Letters</i> , 2011, 94, 48001.	2.0	26
39	The competitiveness versus the wealth of a country. <i>Scientific Reports</i> , 2012, 2, 678.	3.3	26
40	Truncated Lévy process with scale-invariant behavior. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001, 299, 154-160.	2.6	23
41	Network risk and forecasting power in phase-flipping dynamical networks. <i>Physical Review E</i> , 2014, 89, 042807.	2.1	23
42	Locating multiple diffusion sources in time varying networks from sparse observations. <i>Scientific Reports</i> , 2018, 8, 2685.	3.3	22
43	$\hat{\rho}^2$ Cells Operate Collectively to Help Maintain Glucose Homeostasis. <i>Biophysical Journal</i> , 2020, 118, 2588-2595.	0.5	21
44	Preferential attachment in the interaction between dynamically generated interdependent networks. <i>Europhysics Letters</i> , 2012, 100, 50004.	2.0	20
45	ARCH-GARCH approaches to modeling high-frequency financial data. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 344, 216-220.	2.6	19
46	Quantitative relations between risk, return and firm size. <i>Europhysics Letters</i> , 2009, 85, 50003.	2.0	19
47	High-frequency trading model for a complex trading hierarchy. <i>Quantitative Finance</i> , 2012, 12, 559-566.	1.7	19
48	Scaling of seismic memory with earthquake size. <i>Physical Review E</i> , 2012, 86, 011107.	2.1	18
49	Short term prediction of extreme returns based on the recurrence interval analysis. <i>Quantitative Finance</i> , 2018, 18, 353-370.	1.7	18
50	Information Feedback in Temporal Networks as a Predictor of Market Crashes. <i>Complexity</i> , 2018, 2018, 1-13.	1.6	18
51	Double giant resonances in time-dependent relativistic mean-field theory. <i>Nuclear Physics A</i> , 1996, 598, 107-124.	1.5	17
52	Predicting the Lifetime of Dynamic Networks Experiencing Persistent Random Attacks. <i>Scientific Reports</i> , 2015, 5, 14286.	3.3	17
53	Predicting the Rise of EU Right-Wing Populism in Response to Unbalanced Immigration. <i>Complexity</i> , 2017, 2017, 1-12.	1.6	17
54	Stochastic processes with power-law stability and a crossover in power-law correlations. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 316, 153-159.	2.6	15

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55	Estimating Tipping Points in Feedback-Driven Financial Networks. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 1040-1052.	10.8	14
56	Early warning of large volatilities based on recurrence interval analysis in Chinese stock markets. Quantitative Finance, 2016, 16, 1713-1724.	1.7	14
57	Common scaling behavior in finance and macroeconomics. European Physical Journal B, 2010, 76, 487-490.	1.5	12
58	Scale-invariant properties of public-debt growth. Europhysics Letters, 2010, 90, 38006.	2.0	12
59	Systemic risk in dynamical networks with stochastic failure criterion. Europhysics Letters, 2014, 106, 68003.	2.0	12
60	Autopoietic Influence Hierarchies in Pancreatic $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \rangle^2 \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ Cells. Physical Review Letters, 2021, 127, 168101.	7.8	11
61	Biological conservation law as an emerging functionality in dynamical neuronal networks. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11826-11831.	7.1	10
62	Similarity and dissimilarity in correlations of genomic DNA. Physica A: Statistical Mechanics and Its Applications, 2007, 373, 497-502.	2.6	9
63	Factors influencing message dissemination through social media. Physical Review E, 2018, 97, 062306.	2.1	9
64	The new wealth of nations: How STEM fields generate the prosperity and inequality of individuals, companies, and countries. Chaos, Solitons and Fractals, 2020, 141, 110323.	5.1	9
65	Capital death in the world market. Physical Review E, 2014, 89, 032805.	2.1	8
66	Extreme risk induced by communities in interdependent networks. Communications Physics, 2019, 2, .	5.3	8
67	The effects of corruption and the fraction of private ownership on the productivity of telecommunication companies. Technology in Society, 2021, 65, 101532.	9.4	8
68	Asymmetry in power-law magnitude correlations. Physical Review E, 2009, 80, 015101.	2.1	7
69	Promotion of cooperation induced by two-sided players in prisoner's dilemma game. Physica A: Statistical Mechanics and Its Applications, 2018, 490, 584-590.	2.6	7
70	Dynamically rich, yet parameter-sparse models for spatial epidemiology. Physics of Life Reviews, 2015, 15, 43-46.	2.8	6
71	To Invest or Not to Invest, That Is the Question: Analysis of Firm Behavior under Anticipated Shocks. PLoS ONE, 2016, 11, e0158782.	2.5	6
72	How Fear of Future Outcomes Affects Social Dynamics. Journal of Statistical Physics, 2017, 167, 1007-1019.	1.2	6

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73	Scale-free growth of human society based on cooperation and altruistic punishment. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 513, 613-619.	2.6	6
74	Agent-Based Mapping of Credit Risk for Sustainable Microfinance. <i>PLoS ONE</i> , 2015, 10, e0126447.	2.5	6
75	The Gender Productivity Gap in Croatian Science: Women Are Catching up with Males and Becoming Even Better. <i>Entropy</i> , 2020, 22, 1217.	2.2	5
76	Interaction between Fiscal and Monetary Policy in a Dynamic Nonlinear Model. <i>PLoS ONE</i> , 2015, 10, e0118917.	2.5	5
77	Min-Protein Oscillations in <i>E. coli</i> : Three-Dimensional Off-Lattice Stochastic Reaction-Diffusion Model. <i>Journal of Statistical Physics</i> , 2007, 128, 5-20.	1.2	4
78	Does it payoff to research economics? A tale of citation, knowledge and economic growth in transition countries. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 505, 293-305.	2.6	4
79	Effects of quarantine disobedience and mobility restrictions on COVID-19 pandemic waves in dynamical networks. <i>Chaos, Solitons and Fractals</i> , 2021, 150, 111200.	5.1	4
80	Does the Wage Gap between Private and Public Sectors Encourage Political Corruption?. <i>PLoS ONE</i> , 2015, 10, e0141211.	2.5	3
81	Classical convergence versus Zipf rank approach: Evidence from China's local-level data. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 443, 246-253.	2.6	3
82	Emergence of the unified right- and left-wing populism? When radical societal changes become more important than ideology. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 517, 459-474.	2.6	3
83	Chiral quark model in a Tamm-Dancoff inspired approximation. <i>Physical Review D</i> , 1998, 58, .	4.7	2
84	Growth Versus Government Management Improvement During Economic Downturn. <i>Scientific Reports</i> , 2013, 3, 1612.	3.3	2
85	Cities' influence on spatial epidemics. <i>Physics of Life Reviews</i> , 2016, 19, 90-92.	2.8	2
86	A generalization of random matrix theory and its application to statistical physics. <i>Chaos</i> , 2017, 27, 023104.	2.5	2
87	Relativistic mean-field description of collective motion in nuclei: the pion field. <i>Zeitschrift für Physik A</i> , 1996, 354, 375-380.	0.9	1
88	Stringency without efficiency is not adequate to combat pandemics. <i>Chaos, Solitons and Fractals</i> , 2022, 160, 112217.	5.1	1
89	Generating power-law tails in probability distributions. <i>AIP Conference Proceedings</i> , 2001, , .	0.4	0
90	On the instanton-induced portion of the nucleon strangeness II: the MIT model beyond the linearized approximation. <i>European Physical Journal C</i> , 2003, 29, 71-78.	3.9	0

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91	Scaling of Growth Rate Volatility for Six Macroeconomic Variables. Contemporary Economics, 2012, 6, 20-25.	1.8	0
92	Estimating Tipping Points in Feedback-Driven Financial Networks. SSRN Electronic Journal, 0, , .	0.4	0
93	Agent-Based Mapping of Credit Risk for Sustainable Microfinance. SSRN Electronic Journal, 0, , .	0.4	0
94	Does the Wage Gap between Private and Public Sectors Encourage Political Corruption?. SSRN Electronic Journal, 0, , .	0.4	0
95	The microdynamics shaping the relationship between democracy and corruption. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, 20210567.	2.1	0