

Renaud Lambiotte

List of Publications by Year in descending order

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Version: 2024-02-01

129
papers

22,167
citations

66343

42
h-index

17105

122
g-index

138
all docs

138
docs citations

138
times ranked

23533
citing authors

#	ARTICLE	IF	CITATIONS
1	Brexit and bots: characterizing the behaviour of automated accounts on Twitter during the UK election. EPJ Data Science, 2022, 11, 17.	2.8	9
2	Consensus Dynamics and Opinion Formation on Hypergraphs. Understanding Complex Systems, 2022, , 347-376.	0.6	7
3	Flow stability for dynamic community detection. Science Advances, 2022, 8, eabj3063.	10.3	5
4	Consensus from group interactions: An adaptive voter model on hypergraphs. Physical Review E, 2022, 105, .	2.1	12
5	Discrete curvature on graphs from the effective resistance*. Journal of Physics Complexity, 2022, 3, 025008.	2.2	5
6	Metastable oscillatory modes emerge from synchronization in the brain spacetime connectome. Communications Physics, 2022, 5, .	5.3	37
7	Opinion Dynamics with Multi-body Interactions. Communications in Computer and Information Science, 2021, , 261-271.	0.5	5
8	Modelling non-linear consensus dynamics on hypergraphs. Journal of Physics Complexity, 2021, 2, 025006.	2.2	21
9	Random walks and community detection in hypergraphs. Journal of Physics Complexity, 2021, 2, 015011.	2.2	29
10	Dynamics of majority rule on hypergraphs. Physical Review E, 2021, 104, 024316.	2.1	18
11	Extracting complements and substitutes from sales data: a network perspective. EPJ Data Science, 2021, 10, .	2.8	4
12	Nonlinear Network Dynamics with Consensus Dissensus Bifurcation. Journal of Nonlinear Science, 2021, 31, 1.	2.1	6
13	Nonlinear Consensus on Networks: Equilibria, Effective Resistance, and Trees of Motifs. SIAM Journal on Applied Dynamical Systems, 2021, 20, 1544-1570.	1.6	5
14	Random Walks on Dense Graphs and Graphons. SIAM Journal on Applied Mathematics, 2021, 81, 2323-2345.	1.8	3
15	Consensus dynamics on temporal hypergraphs. Physical Review E, 2021, 104, 064305.	2.1	25
16	Rock paper scissors dynamics from random walks on temporal multiplex networks. Journal of Complex Networks, 2020, 8, .	1.8	4
17	Multibody interactions and nonlinear consensus dynamics on networked systems. Physical Review E, 2020, 101, 032310.	2.1	74
18	Community detection in networks without observing edges. Science Advances, 2020, 6, eaav1478.	10.3	35

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19	Mobile phone data for informing public health actions across the COVID-19 pandemic life cycle. Science Advances, 2020, 6, eabc0764.	10.3	439
20	Classes of random walks on temporal networks with competing timescales. Applied Network Science, 2019, 4, .	1.5	5
21	Dynamical exploration of the repertoire of brain networks at rest is modulated by psilocybin. NeuroImage, 2019, 199, 127-142.	4.2	152
22	Multiscale dynamical embeddings of complex networks. Physical Review E, 2019, 99, 062308.	2.1	32
23	Temporal Sequence of Retweets Help to Detect Influential Nodes in Social Networks. IEEE Transactions on Computational Social Systems, 2019, 6, 441-455.	4.4	23
24	From networks to optimal higher-order models of complex systems. Nature Physics, 2019, 15, 313-320.	16.7	239
25	RankMerging: a supervised learning-to-rank framework to predict links in large social networks. Machine Learning, 2019, 108, 1729-1756.	5.4	2
26	Relating Modularity Maximization and Stochastic Block Models in Multilayer Networks. SIAM Journal on Mathematics of Data Science, 2019, 1, 667-698.	1.8	16
27	Modelling structure and predicting dynamics of discussion threads in online boards. Journal of Complex Networks, 2019, 7, 67-82.	1.8	22
28	Simplicial complexes and complex systems. European Journal of Physics, 2019, 40, 014001.	0.6	96
29	The Anatomy of Reddit: An Overview of Academic Research. Springer Proceedings in Complexity, 2019, , 183-204.	0.3	47
30	Extracting significant signal of news consumption from social networks: the case of Twitter in Italian political elections. Palgrave Communications, 2019, 5, .	4.7	28
31	Continuous-Time Random Walks and Temporal Networks. Computational Social Sciences, 2019, , 219-233.	0.4	0
32	Multiscale mixing patterns in networks. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4057-4062.	7.1	60
33	Co-occurrence simplicial complexes in mathematics: identifying the holes of knowledge. Applied Network Science, 2018, 3, 37.	1.5	10
34	Random walk on temporal networks with lasting edges. Physical Review E, 2018, 98, .	2.1	12
35	Identifying exogenous and endogenous activity in social media. Physical Review E, 2018, 98, .	2.1	12
36	The struggle for existence in the world market ecosystem. PLoS ONE, 2018, 13, e0203915.	2.5	0

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37	Structure and dynamical behavior of non-normal networks. <i>Science Advances</i> , 2018, 4, eaau9403.	10.3	70
38	Respondent-Driven Sampling Bias Induced by Community Structure and Response Rates in Social Networks. <i>Journal of the Royal Statistical Society Series A: Statistics in Society</i> , 2017, 180, 99-118.	1.1	22
39	The many facets of community detection in complex networks. <i>Applied Network Science</i> , 2017, 2, 4.	1.5	125
40	Onset of anomalous diffusion from local motion rules. <i>Physical Review E</i> , 2017, 95, 022113.	2.1	14
41	Random walks and diffusion on networks. <i>Physics Reports</i> , 2017, 716-717, 1-58.	25.6	420
42	Graph spectral characterization of the $\langle X \cdot Y \rangle$ model on complex networks. <i>Physical Review E</i> , 2017, 96, 012312.		
43	Temporal Pattern of (Re)tweets Reveal Cascade Migration. , 2017, , .		4
44	Backtracking and Mixing Rate of Diffusion on Uncorrelated Temporal Networks. <i>Entropy</i> , 2017, 19, 542.	2.2	5
45	Stationarity of the inter-event power-law distributions. <i>PLoS ONE</i> , 2017, 12, e0174509.	2.5	6
46	Coupled tensor decomposition: A step towards robust components. , 2016, , .		8
47	Graph partitions and cluster synchronization in networks of oscillators. <i>Chaos</i> , 2016, 26, 094821.	2.5	110
48	Using higher-order Markov models to reveal flow-based communities in networks. <i>Scientific Reports</i> , 2016, 6, 23194.	3.3	38
49	Densification and structural transitions in networks that grow by node copying. <i>Physical Review E</i> , 2016, 94, 062302.	2.1	20
50	Burstiness and fractional diffusion on complex networks. <i>European Physical Journal B</i> , 2016, 89, 1.	1.5	10
51	The classical origin of modern mathematics. <i>EPJ Data Science</i> , 2016, 5, .	2.8	25
52	Rich gets simpler. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 9961-9962.	7.1	3
53	Models of temporal networks. , 2016, , 141-174.		0
54	Dynamics on temporal networks. , 2016, , 175-212.		1

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55	Structural Transitions in Densifying Networks. <i>Physical Review Letters</i> , 2016, 117, 218301.	7.8	38
56	Input-output relationship in social communications characterized by spike train analysis. <i>Physical Review E</i> , 2016, 94, 042313.	2.1	16
57	Predicting links in ego-networks using temporal information. <i>EPJ Data Science</i> , 2016, 5, .	2.8	36
58	Analysis of metapopulation epidemic process on arbitrary networks**This work was partly supported by Bilateral Joint Research Projects between JSPS, Japan, and F.R.S.-FNRS, Belgium. T.T. was supported by JST, ERATO, Kawarabayashi Large Graph Project.. <i>IFAC-PapersOnLine</i> , 2015, 48, 141-145.	0.9	0
59	Mining open datasets for transparency in taxi transport in metropolitan environments. <i>EPJ Data Science</i> , 2015, 4, 23.	2.8	14
60	Local Variation of Hashtag Spike Trains and Popularity in Twitter. <i>PLoS ONE</i> , 2015, 10, e0131704.	2.5	23
61	Temporal pattern of online communication spike trains in spreading a scientific rumor: how often, who interacts with whom?. <i>Frontiers in Physics</i> , 2015, 3, .	2.1	5
62	Diffusion on networked systems is a question of time or structure. <i>Nature Communications</i> , 2015, 6, 7366.	12.8	110
63	Imperfect spreading on temporal networks. <i>European Physical Journal B</i> , 2015, 88, 1.	1.5	6
64	Preferential attachment with partial information. <i>European Physical Journal B</i> , 2015, 88, 1.	1.5	9
65	Steady state and mean recurrence time for random walks on stochastic temporal networks. <i>Physical Review E</i> , 2015, 91, 012806.	2.1	21
66	Sufficient conditions of endemic threshold on metapopulation networks. <i>Journal of Theoretical Biology</i> , 2015, 380, 134-143.	1.7	5
67	Effect of memory on the dynamics of random walks on networks. <i>Journal of Complex Networks</i> , 2015, 3, 177-188.	1.8	36
68	Topological Properties and Temporal Dynamics of Place Networks in Urban Environments. , 2015, , .		35
69	The Non-linear Health Consequences of Living in Larger Cities. <i>Journal of Urban Health</i> , 2015, 92, 785-799.	3.6	48
70	Random Walks, Markov Processes and the Multiscale Modular Organization of Complex Networks. <i>IEEE Transactions on Network Science and Engineering</i> , 2014, 1, 76-90.	6.4	259
71	Tracking the Digital Footprints of Personality. <i>Proceedings of the IEEE</i> , 2014, 102, 1934-1939.	21.3	107
72	Memory in network flows and its effects on spreading dynamics and community detection. <i>Nature Communications</i> , 2014, 5, 4630.	12.8	279

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73	The geography and carbon footprint of mobile phone use in Cote d'Ivoire. EPJ Data Science, 2014, 3, .	2.8	5
74	Burstiness and spreading on temporal networks. European Physical Journal B, 2013, 86, 1.	1.5	58
75	Decentralized routing on spatial networks with stochastic edge weights. Physical Review E, 2013, 88, 022815.	2.1	1
76	Traumatic brain injury impairs small-world topology. Neurology, 2013, 80, 1826-1833.	1.1	168
77	Multi-scale Modularity and Dynamics in Complex Networks. Modeling and Simulation in Science, Engineering and Technology, 2013, , 125-141.	0.6	7
78	Random Walks on Stochastic Temporal Networks. Understanding Complex Systems, 2013, , 295-313.	0.6	40
79	Psychological Aspects of Social Communities. , 2012, , .		9
80	Encoding dynamics for multiscale community detection: Markov time sweeping for the map equation. Physical Review E, 2012, 86, 026112.	2.1	58
81	Generalized master equations for non-Poisson dynamics on networks. Physical Review E, 2012, 86, 046102.	2.1	68
82	The personality of popular facebook users. , 2012, , .		120
83	The discovery of population differences in network community structure: New methods and applications to brain functional networks in schizophrenia. NeuroImage, 2012, 59, 3889-3900.	4.2	195
84	Functional brain networks before the onset of psychosis: A prospective fMRI study with graph theoretical analysis. NeuroImage: Clinical, 2012, 1, 91-98.	2.7	40
85	A Tale of Many Cities: Universal Patterns in Human Urban Mobility. PLoS ONE, 2012, 7, e37027.	2.5	395
86	Characterization of the anterior cingulate's role in the at-risk mental state using graph theory. NeuroImage, 2011, 56, 1531-1539.	4.2	50
87	Maximal-entropy random walks in complex networks with limited information. Physical Review E, 2011, 83, 030103.	2.1	94
88	Community structure and patterns of scientific collaboration in Business and Management. Scientometrics, 2011, 89, 381-396.	3.0	60
89	On co-evolution and the importance of initial conditions. Physica A: Statistical Mechanics and Its Applications, 2011, 390, 392-397.	2.6	10
90	Self-similar correlation function in brain resting-state functional magnetic resonance imaging. Journal of the Royal Society Interface, 2011, 8, 472-479.	3.4	130

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91	Uncovering space-independent communities in spatial networks. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7663-7668.	7.1	274
92	Modular and Hierarchically Modular Organization of Brain Networks. Frontiers in Neuroscience, 2010, 4, 200.	2.8	897
93	Line graphs of weighted networks for overlapping communities. European Physical Journal B, 2010, 77, 265-272.	1.5	106
94	Multirelational organization of large-scale social networks in an online world. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13636-13641.	7.1	726
95	Hierarchical modularity in human brain functional networks. Frontiers in Neuroinformatics, 2009, 3, 37.	2.5	522
96	Role of second trials in cascades of information over networks. Physical Review E, 2009, 79, 016114.	2.1	13
97	Communities, knowledge creation, and information diffusion. Journal of Informetrics, 2009, 3, 180-190.	2.9	125
98	Dynamics of latent voters. Physical Review E, 2009, 79, 046107.	2.1	41
99	Line graphs, link partitions, and overlapping communities. Physical Review E, 2009, 80, 016105.	2.1	427
100	Geographical dispersal of mobile communication networks. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 5317-5325.	2.6	326
101	Fast unfolding of communities in large networks. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P10008.	2.3	12,786
102	ANDRZEJ PÈKALSKI NETWORKS OF SCIENTIFIC INTERESTS WITH INTERNAL DEGREES OF FREEDOM THROUGH SELF-CITATION ANALYSIS. International Journal of Modern Physics C, 2008, 19, 371-384.	1.7	10
103	Dynamics of non-conservative voters. Europhysics Letters, 2008, 82, 18007.	2.0	80
104	Opinion formation in laggard societies. Europhysics Letters, 2008, 82, 28008.	2.0	29
105	Majority rule on heterogeneous networks. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 224021.	2.1	14
106	Local leaders in random networks. Physical Review E, 2008, 77, 036114.	2.1	47
107	How does degree heterogeneity affect an order-disorder transition?. Europhysics Letters, 2007, 78, 68002.	2.0	39
108	Growing network with j-redirection. Europhysics Letters, 2007, 77, 58002.	2.0	16

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109	Coexistence of opposite opinions in a network with communities. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P08026-P08026.	2.3	51
110	Majority model on a network with communities. Physical Review E, 2007, 75, 030101.	2.1	93
111	Unanimity rule on networks. Physical Review E, 2007, 76, 046101.	2.1	22
112	Activity ageing in growing networks. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P02020-P02020.	2.3	6
113	Dynamics of vacillating voters. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, L10001-L10001.	2.3	34
114	Energy and number of collision fluctuations in inelastic gases. Physica A: Statistical Mechanics and Its Applications, 2007, 375, 227-232.	2.6	5
115	Clusters or networks of economies? A macroeconomy study through Gross Domestic Product. Physica A: Statistical Mechanics and Its Applications, 2007, 382, 16-21.	2.6	53
116	Word statistics in Blogs and RSS feeds: Towards empirical universal evidence. Journal of Informetrics, 2007, 1, 277-286.	2.9	23
117	Drastic events make evolving networks. European Physical Journal B, 2007, 57, 89-94.	1.5	6
118	Self-citations, co-authorships and keywords: A new approach to scientists' field mobility?. Scientometrics, 2007, 72, 469-486.	3.0	63
119	Endo- vs. exogenous shocks and relaxation rates in book and music sales. Physica A: Statistical Mechanics and Its Applications, 2006, 362, 485-494.	2.6	21
120	Time-evolving distribution of time lags between commercial airline disasters. Physica A: Statistical Mechanics and Its Applications, 2006, 362, 513-524.	2.6	7
121	On high-energy tails in inelastic gases. Physica A: Statistical Mechanics and Its Applications, 2006, 366, 250-254.	2.6	1
122	On the genre-fication of music: a percolation approach. European Physical Journal B, 2006, 50, 183-188.	1.5	30
123	Brownian particle having a fluctuating mass. Physical Review E, 2006, 73, 011105.	2.1	46
124	From particle segregation to the granular clock. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 343, 224-230.	2.1	29
125	Truncated Levy distributions in an inelastic gas. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 345, 309-313.	2.1	8
126	Granular matter: A wonderful world of clusters in far-from-equilibrium systems. Physica A: Statistical Mechanics and Its Applications, 2005, 357, 337-349.	2.6	12

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127	Uncovering collective listening habits and music genres in bipartite networks. Physical Review E, 2005, 72, 066107.	2.1	104
128	N-body decomposition of bipartite author networks. Physical Review E, 2005, 72, 066117.	2.1	23
129	Energy nonequipartition in multicomponent granular mixtures. Physical Review E, 2005, 72, 042301.	2.1	8