Renaud Lambiotte

List of Publications by Year
in descending order

129	22,167	66336 42	17104 122
papers	citations	h-index	g-index

138	138	138	23533
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fast unfolding of communities in large networks. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P10008.	2.3	12,786
2	Modular and Hierarchically Modular Organization of Brain Networks. Frontiers in Neuroscience, 2010, 4, 200.	2.8	897
3	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
4	Hierarchical modularity in human brain functional networks. Frontiers in Neuroinformatics, 2009, 3, 37.	2.5	522
5	Mobile phone data for informing public health actions across the COVID-19 pandemic life cycle. Science Advances, 2020, 6, eabc0764.	10.3	439
6	Line graphs, link partitions, and overlapping communities. Physical Review E, 2009, 80, 016105.	2.1	427
7	Random walks and diffusion on networks. Physics Reports, 2017, 716-717, 1-58.	25.6	420
8	A Tale of Many Cities: Universal Patterns in Human Urban Mobility. PLoS ONE, 2012, 7, e37027.	2.5	395
9	Geographical dispersal of mobile communication networks. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 5317-5325.	2.6	326
10	Memory in network flows and its effects on spreading dynamics and community detection. Nature Communications, 2014, 5, 4630.	12.8	279
11	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
12	Random Walks, Markov Processes and the Multiscale Modular Organization of Complex Networks. IEEE Transactions on Network Science and Engineering, 2014, 1, 76-90.	6.4	259
13	From networks to optimal higher-order models of complex systems. Nature Physics, 2019, 15, 313-320.	16.7	239
14	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
15	Traumatic brain injury impairs small-world topology. Neurology, 2013, 80, 1826-1833.	1.1	168
16	Dynamical exploration of the repertoire of brain networks at rest is modulated by psilocybin. NeuroImage, 2019, 199, 127-142.	4.2	152
17	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
18	Communities, knowledge creation, and information diffusion. Journal of Informetrics, 2009, 3, 180-190.	2.9	125

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19	The many facets of community detection in complex networks. Applied Network Science, 2017, 2, 4.	1.5	125
20	The personality of popular facebook users. , 2012, , .		120
21	Diffusion on networked systems is a question of time or structure. Nature Communications, 2015, 6, 7366.	12.8	110
22	Graph partitions and cluster synchronization in networks of oscillators. Chaos, 2016, 26, 094821.	2.5	110
23	Tracking the Digital Footprints of Personality. Proceedings of the IEEE, 2014, 102, 1934-1939.	21.3	107
24	Line graphs of weighted networks for overlapping communities. European Physical Journal B, 2010, 77, 265-272.	1.5	106
25	Uncovering collective listening habits and music genres in bipartite networks. Physical Review E, 2005, 72, 066107.	2.1	104
26	Simplicial complexes and complex systems. European Journal of Physics, 2019, 40, 014001.	0.6	96
27	Maximal-entropy random walks in complex networks with limited information. Physical Review E, 2011, 83, 030103.	2.1	94
28	Majority model on a network with communities. Physical Review E, 2007, 75, 030101.	2.1	93
29	Dynamics of non-conservative voters. Europhysics Letters, 2008, 82, 18007.	2.0	80
30	Multibody interactions and nonlinear consensus dynamics on networked systems. Physical Review E, 2020, 101, 032310.	2.1	74
31	Structure and dynamical behavior of non-normal networks. Science Advances, 2018, 4, eaau9403.	10.3	70
32	Generalized master equations for non-Poisson dynamics on networks. Physical Review E, 2012, 86, 046102.	2.1	68
33	Self-citations, co-authorships and keywords: A new approach to scientistsâ€™ field mobility?. Scientometrics, 2007, 72, 469-486.	3.0	63
34	Community structure and patterns of scientific collaboration in Business and Management. Scientometrics, 2011, 89, 381-396.	3.0	60
35	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
36	Encoding dynamics for multiscale community detection: Markov time sweeping for the map equation. Physical Review E, 2012, 86, 026112.	2.1	58

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37	Burstiness and spreading on temporal networks. European Physical Journal B, 2013, 86, 1.	1.5	58
38	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
39	Coexistence of opposite opinions in a network with communities. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P08026-P08026.	2.3	51
40	Characterization of the anterior cingulate's role in the at-risk mental state using graph theory. NeuroImage, 2011, 56, 1531-1539.	4.2	50
41	The Non-linear Health Consequences of Living in Larger Cities. Journal of Urban Health, 2015, 92, 785-799.	3.6	48
42	Local leaders in random networks. Physical Review E, 2008, 77, 036114.	2.1	47
43	The Anatomy of Reddit: An Overview of Academic Research. Springer Proceedings in Complexity, 2019, , 183-204.	0.3	47
44	Brownian particle having a fluctuating mass. Physical Review E, 2006, 73, 011105.	2.1	46
45	Dynamics of latent voters. Physical Review E, 2009, 79, 046107.	2.1	41
46	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
47	Random Walks on Stochastic Temporal Networks. Understanding Complex Systems, 2013, , 295-313.	0.6	40
48	How does degree heterogeneity affect an order-disorder transition?. Europhysics Letters, 2007, 78, 68002.	2.0	39
49	Using higher-order Markov models to reveal flow-based communities in networks. Scientific Reports, 2016, 6, 23194.	3.3	38
50	Structural Transitions in Densifying Networks. Physical Review Letters, 2016, 117, 218301.	7.8	38
51	Metastable oscillatory modes emerge from synchronization in the brain spacetime connectome. Communications Physics, 2022, 5, .	5.3	37
52	Effect of memory on the dynamics of random walks on networks. Journal of Complex Networks, 2015, 3, 177-188.	1.8	36
53	Predicting links in ego-networks using temporal information. EPJ Data Science, 2016, 5, .	2.8	36
54	Topological Properties and Temporal Dynamics of Place Networks in Urban Environments. , 2015, , .		35

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55	Community detection in networks without observing edges. Science Advances, 2020, 6, eaav1478.	10.3	35
56	Dynamics of vacillating voters. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, L10001-L10001.	2.3	34
57	Multiscale dynamical embeddings of complex networks. Physical Review E, 2019, 99, 062308.	2.1	32
58	On the genre-fication of music: a percolation approach. European Physical Journal B, 2006, 50, 183-188.	1.5	30
59	From particle segregation to the granular clock. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 343, 224-230.	2.1	29
60	Opinion formation in laggard societies. Europhysics Letters, 2008, 82, 28008.	2.0	29
61	Random walks and community detection in hypergraphs. Journal of Physics Complexity, 2021, 2, 015011.	2.2	29
62	Extracting significant signal of news consumption from social networks: the case of Twitter in Italian political elections. Palgrave Communications, 2019, 5, .	4.7	28
63	The classical origin of modern mathematics. EPJ Data Science, 2016, 5, .	2.8	25
64	Consensus dynamics on temporal hypergraphs. Physical Review E, 2021, 104, 064305.	2.1	25
65	N-body decomposition of bipartite author networks. Physical Review E, 2005, 72, 066117.	2.1	23
66	Word statistics in Blogs and RSS feeds: Towards empirical universal evidence. Journal of Informetrics, 2007, 1, 277-286.	2.9	23
67	Local Variation of Hashtag Spike Trains and Popularity in Twitter. PLoS ONE, 2015, 10, e0131704.	2.5	23
68	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
69	Unanimity rule on networks. Physical Review E, 2007, 76, 046101.	2.1	22
70	Respondent-Driven Sampling Bias Induced by Community Structure and Response Rates in Social Networks. Journal of the Royal Statistical Society Series A: Statistics in Society, 2017, 180, 99-118.	1.1	22
71	Modelling structure and predicting dynamics of discussion threads in online boards. Journal of Complex Networks, 2019, 7, 67-82.	1.8	22
72	Endo- vs. exogenous shocks and relaxation rates in book and music â€œsalesâ€• Physica A: Statistical Mechanics and Its Applications, 2006, 362, 485-494.	2.6	21

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73	Steady state and mean recurrence time for random walks on stochastic temporal networks. Physical Review E, 2015, 91, 012806.	2.1	21
74	Modelling non-linear consensus dynamics on hypergraphs. Journal of Physics Complexity, 2021, 2, 025006.	2.2	21
75	Densification and structural transitions in networks that grow by node copying. Physical Review E, 2016, 94, 062302.	2.1	20
76	Dynamics of majority rule on hypergraphs. Physical Review E, 2021, 104, 024316.	2.1	18
77	Growing network with j-redirection. Europhysics Letters, 2007, 77, 58002.	2.0	16
78	Input-output relationship in social communications characterized by spike train analysis. Physical Review E, 2016, 94, 042313.	2.1	16
79	Relating Modularity Maximization and Stochastic Block Models in Multilayer Networks. SIAM Journal on Mathematics of Data Science, 2019, 1, 667-698.	1.8	16
80	Majority rule on heterogeneous networks. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 224021.	2.1	14
81	Mining open datasets for transparency in taxi transport in metropolitan environments. EPJ Data Science, 2015, 4, 23.	2.8	14
82	Onset of anomalous diffusion from local motion rules. Physical Review E, 2017, 95, 022113.	2.1	14
83	Role of second trials in cascades of information over networks. Physical Review E, 2009, 79, 016114.	2.1	13
84	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
85	Random walk on temporal networks with lasting edges. Physical Review E, 2018, 98, .	2.1	12
86	Identifying exogenous and endogenous activity in social media. Physical Review E, 2018, 98, .	2.1	12
87	Consensus from group interactions: An adaptive voter model on hypergraphs. Physical Review E, 2022, 105, .	2.1	12
88	ANDRZEJ PÈ¨KALSKI 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
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	Burstiness and fractional diffusion on complex networks. European Physical Journal B, 2016, 89, 1.	1.5	10

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91	Co-occurrence simplicial complexes in mathematics: identifying the holes of knowledge. Applied Network Science, 2018, 3, 37.	1.5	10
92	Psychological Aspects of Social Communities. , 2012, , .		9
93	Preferential attachment with partial information. European Physical Journal B, 2015, 88, 1.	1.5	9
94	Brexit and bots: characterizing the behaviour of automated accounts on Twitter during the UK election. EPJ Data Science, 2022, 11, 17.	2.8	9
95	Truncated LÃ©vy distributions in an inelastic gas. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 345, 309-313.	2.1	8
96	Energy nonequipartition in multicomponent granular mixtures. Physical Review E, 2005, 72, 042301.	2.1	8
97	Coupled tensor decomposition: A step towards robust components. , 2016, , .		8
98	Time-evolving distribution of time lags between commercial airline disasters. Physica A: Statistical Mechanics and Its Applications, 2006, 362, 513-524.	2.6	7
99	Graph spectral characterization of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>X</mml:mi><mml:mi>Y</mml:mi></mml:mrow></mml:m model on complex networks. Physical Review E, 2017, 96, 012312.	2.1	7
100	Multi-scale Modularity and Dynamics in Complex Networks. Modeling and Simulation in Science, Engineering and Technology, 2013, , 125-141.	0.6	7
101	Consensus Dynamics andÂOpinion Formation onÂHypergraphs. Understanding Complex Systems, 2022, , 347-376.	0.6	7
102	Activity ageing in growing networks. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P02020-P02020.	2.3	6
103	Drastic events make evolving networks. European Physical Journal B, 2007, 57, 89-94.	1.5	6
104	Imperfect spreading on temporal networks. European Physical Journal B, 2015, 88, 1.	1.5	6
105	Stationarity of the inter-event power-law distributions. PLoS ONE, 2017, 12, e0174509.	2.5	6
106	Nonlinear Network Dynamics with Consensusâ€“Dissensus Bifurcation. Journal of Nonlinear Science, 2021, 31, 1.	2.1	6
107	Energy and number of collision fluctuations in inelastic gases. Physica A: Statistical Mechanics and Its Applications, 2007, 375, 227-232.	2.6	5
108	The geography and carbon footprint of mobile phone use in Cote dâ€™Ivoire. EPJ Data Science, 2014, 3, .	2.8	5

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109	Temporal pattern of online communication spike trains in spreading a scientific rumor: how often, who interacts with whom?. Frontiers in Physics, 2015, 3, .	2.1	5
110	Sufficient conditions of endemic threshold on metapopulation networks. Journal of Theoretical Biology, 2015, 380, 134-143.	1.7	5
111	Backtracking and Mixing Rate of Diffusion on Uncorrelated Temporal Networks. Entropy, 2017, 19, 542.	2.2	5
112	Classes of random walks on temporal networks with competing timescales. Applied Network Science, 2019, 4, .	1.5	5
113	Opinion Dynamics with Multi-body Interactions. Communications in Computer and Information Science, 2021, , 261-271.	0.5	5
114	Nonlinear Consensus on Networks: Equilibria, Effective Resistance, and Trees of Motifs. SIAM Journal on Applied Dynamical Systems, 2021, 20, 1544-1570.	1.6	5
115	Flow stability for dynamic community detection. Science Advances, 2022, 8, eabj3063.	10.3	5
116	Discrete curvature on graphs from the effective resistance*. Journal of Physics Complexity, 2022, 3, 025008.	2.2	5
117	Temporal Pattern of (Re)tweets Reveal Cascade Migration. , 2017, , .		4
118	Rockâ€“paperâ€“scissors dynamics from random walks on temporal multiplex networks. Journal of Complex Networks, 2020, 8, .	1.8	4
119	Extracting complements and substitutes from sales data: a network perspective. EPJ Data Science, 2021, 10, .	2.8	4
120	Rich gets simpler. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9961-9962.	7.1	3
121	Random Walks on Dense Graphs and Graphons. SIAM Journal on Applied Mathematics, 2021, 81, 2323-2345.	1.8	3
122	RankMerging: a supervised learning-to-rank framework to predict links in large social networks. Machine Learning, 2019, 108, 1729-1756.	5.4	2
123	On high-energy tails in inelastic gases. Physica A: Statistical Mechanics and Its Applications, 2006, 366, 250-254.	2.6	1
124	Decentralized routing on spatial networks with stochastic edge weights. Physical Review E, 2013, 88, 022815.	2.1	1
125	Dynamics on temporal networks. , 2016, , 175-212.		1
126	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.. IFAC-PapersOnLine, 2015, 48, 141-145.	0.9	0

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127	Models of temporal networks. , 2016, , 141-174.		0
128	The struggle for existence in the world market ecosystem. PLoS ONE, 2018, 13, e0203915.	2.5	0
129	Continuous-Time Random Walks and Temporal Networks. Computational Social Sciences, 2019, , 219-233.	0.4	0