

# Renaud Lambiotte

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

129  
papers

15,215  
citations

39  
h-index

123  
g-index

138  
ext. papers

19,211  
ext. citations

3.9  
avg, IF

6.95  
L-index

#	Paper	IF	Citations
129	Fast unfolding of communities in large networks. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2008</b> , 2008, P10008	1.9	8361
128	Modular and hierarchically modular organization of brain networks. <i>Frontiers in Neuroscience</i> , <b>2010</b> , 4, 200	5.1	666
127	Multirelational organization of large-scale social networks in an online world. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 13636-41	11.5	589
126	Hierarchical modularity in human brain functional networks. <i>Frontiers in Neuroinformatics</i> , <b>2009</b> , 3, 37	3.9	409
125	Line graphs, link partitions, and overlapping communities. <i>Physical Review E</i> , <b>2009</b> , 80, 016105	2.4	354
124	A tale of many cities: universal patterns in human urban mobility. <i>PLoS ONE</i> , <b>2012</b> , 7, e37027	3.7	317
123	Geographical dispersal of mobile communication networks. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2008</b> , 387, 5317-5325	3.3	275
122	Random walks and diffusion on networks. <i>Physics Reports</i> , <b>2017</b> , 716-717, 1-58	27.7	272
121	Uncovering space-independent communities in spatial networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 7663-8	11.5	236
120	Memory in network flows and its effects on spreading dynamics and community detection. <i>Nature Communications</i> , <b>2014</b> , 5, 4630	17.4	218
119	Random Walks, Markov Processes and the Multiscale Modular Organization of Complex Networks. <i>IEEE Transactions on Network Science and Engineering</i> , <b>2014</b> , 1, 76-90	4.9	181
118	The discovery of population differences in network community structure: new methods and applications to brain functional networks in schizophrenia. <i>NeuroImage</i> , <b>2012</b> , 59, 3889-900	7.9	149
117	Traumatic brain injury impairs small-world topology. <i>Neurology</i> , <b>2013</b> , 80, 1826-33	6.5	138
116	From networks to optimal higher-order models of complex systems. <i>Nature Physics</i> , <b>2019</b> , 15, 313-320	16.2	105
115	Self-similar correlation function in brain resting-state functional magnetic resonance imaging. <i>Journal of the Royal Society Interface</i> , <b>2011</b> , 8, 472-9	4.1	94
114	Communities, knowledge creation, and information diffusion. <i>Journal of Informetrics</i> , <b>2009</b> , 3, 180-190	3.1	92
113	Line graphs of weighted networks for overlapping communities. <i>European Physical Journal B</i> , <b>2010</b> , 77, 265-272	1.2	92

112	Uncovering collective listening habits and music genres in bipartite networks. <i>Physical Review E</i> , <b>2005</b> , 72, 066107	2.4	87
111	The many facets of community detection in complex networks. <i>Applied Network Science</i> , <b>2017</b> , 2, 4	2.9	86
110	The personality of popular facebook users <b>2012</b> ,		86
109	Graph partitions and cluster synchronization in networks of oscillators. <i>Chaos</i> , <b>2016</b> , 26, 094821	3.3	83
108	Majority model on a network with communities. <i>Physical Review E</i> , <b>2007</b> , 75, 030101	2.4	82
107	Diffusion on networked systems is a question of time or structure. <i>Nature Communications</i> , <b>2015</b> , 6, 7366	7.4	79
106	Maximal-entropy random walks in complex networks with limited information. <i>Physical Review E</i> , <b>2011</b> , 83, 030103	2.4	79
105	. <i>Proceedings of the IEEE</i> , <b>2014</b> , 102, 1934-1939	14.3	75
104	Dynamics of non-conservative voters. <i>Europhysics Letters</i> , <b>2008</b> , 82, 18007	1.6	75
103	Generalized master equations for non-Poisson dynamics on networks. <i>Physical Review E</i> , <b>2012</b> , 86, 046102	2.4	60
102	Simplicial complexes and complex systems. <i>European Journal of Physics</i> , <b>2019</b> , 40, 014001	0.8	57
101	Dynamical exploration of the repertoire of brain networks at rest is modulated by psilocybin. <i>NeuroImage</i> , <b>2019</b> , 199, 127-142	7.9	53
100	Self-citations, co-authorships and keywords: A new approach to scientists' field mobility?. <i>Scientometrics</i> , <b>2007</b> , 72, 469-486	3	48
99	Clusters or networks of economies? A macroeconomy study through Gross Domestic Product. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2007</b> , 382, 16-21	3.3	47
98	Collaborative Tagging as a Tripartite Network. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 1114-1117	0.9	47
97	Encoding dynamics for multiscale community detection: Markov time sweeping for the map equation. <i>Physical Review E</i> , <b>2012</b> , 86, 026112	2.4	46
96	Burstiness and spreading on temporal networks. <i>European Physical Journal B</i> , <b>2013</b> , 86, 1	1.2	45
95	Community structure and patterns of scientific collaboration in Business and Management. <i>Scientometrics</i> , <b>2011</b> , 89, 381-396	3	45

94	Characterization of the anterior cingulate's role in the at-risk mental state using graph theory. <i>NeuroImage</i> , <b>2011</b> , 56, 1531-9	7.9	44
93	Coexistence of opposite opinions in a network with communities. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2007</b> , 2007, P08026-P08026	1.9	44
92	Brownian particle having a fluctuating mass. <i>Physical Review E</i> , <b>2006</b> , 73, 011105	2.4	43
91	How does degree heterogeneity affect an order-disorder transition?. <i>Europhysics Letters</i> , <b>2007</b> , 78, 68002.6	2.6	38
90	Multiscale mixing patterns in networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 4057-4062	11.5	36
89	Structure and dynamical behavior of non-normal networks. <i>Science Advances</i> , <b>2018</b> , 4, eaau9403	14.3	34
88	The Non-linear Health Consequences of Living in Larger Cities. <i>Journal of Urban Health</i> , <b>2015</b> , 92, 785-995.8	5.8	33
87	Dynamics of latent voters. <i>Physical Review E</i> , <b>2009</b> , 79, 046107	2.4	33
86	Multibody interactions and nonlinear consensus dynamics on networked systems. <i>Physical Review E</i> , <b>2020</b> , 101, 032310	2.4	31
85	Topological Properties and Temporal Dynamics of Place Networks in Urban Environments <b>2015</b> ,		30
84	Effect of memory on the dynamics of random walks on networks. <i>Journal of Complex Networks</i> , <b>2015</b> , 3, 177-188	1.7	29
83	Dynamics of vacillating voters. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2007</b> , 2007, L100019-L100019	1.9	29
82	Functional brain networks before the onset of psychosis: A prospective fMRI study with graph theoretical analysis. <i>NeuroImage: Clinical</i> , <b>2012</b> , 1, 91-8	5.3	28
81	Opinion formation in laggard societies. <i>Europhysics Letters</i> , <b>2008</b> , 82, 28008	1.6	28
80	Predicting links in ego-networks using temporal information. <i>EPJ Data Science</i> , <b>2016</b> , 5,	3.4	27
79	From particle segregation to the granular clock. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2005</b> , 343, 224-230	2.3	27
78	Structural Transitions in Densifying Networks. <i>Physical Review Letters</i> , <b>2016</b> , 117, 218301	7.4	25
77	Local leaders in random networks. <i>Physical Review E</i> , <b>2008</b> , 77, 036114	2.4	25

76	On the genre-fication of music: a percolation approach. <i>European Physical Journal B</i> , <b>2006</b> , 50, 183-188	1.2	25
75	Using higher-order Markov models to reveal flow-based communities in networks. <i>Scientific Reports</i> , <b>2016</b> , 6, 23194	4.9	25
74	Community detection in networks without observing edges. <i>Science Advances</i> , <b>2020</b> , 6, eaav1478	14.3	21
73	Word statistics in Blogs and RSS feeds: Towards empirical universal evidence. <i>Journal of Informetrics</i> , <b>2007</b> , 1, 277-286	3.1	21
72	Unanimity rule on networks. <i>Physical Review E</i> , <b>2007</b> , 76, 046101	2.4	21
71	N-body decomposition of bipartite author networks. <i>Physical Review E</i> , <b>2005</b> , 72, 066117	2.4	21
70	Local Variation of Hashtag Spike Trains and Popularity in Twitter. <i>PLoS ONE</i> , <b>2015</b> , 10, e0131704	3.7	19
69	Endo- vs. exogenous shocks and relaxation rates in book and music sales. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2006</b> , 362, 485-494	3.3	19
68	Multiscale dynamical embeddings of complex networks. <i>Physical Review E</i> , <b>2019</b> , 99, 062308	2.4	18
67	The Anatomy of Reddit: An Overview of Academic Research. <i>Springer Proceedings in Complexity</i> , <b>2019</b> , 183-204	0.3	18
66	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> , <b>2017</b> , 180, 99-118	2.1	17
65	The classical origin of modern mathematics. <i>EPJ Data Science</i> , <b>2016</b> , 5,	3.4	17
64	Extracting significant signal of news consumption from social networks: the case of Twitter in Italian political elections. <i>Palgrave Communications</i> , <b>2019</b> , 5,	5.3	16
63	Modelling structure and predicting dynamics of discussion threads in online boards. <i>Journal of Complex Networks</i> , <b>2019</b> , 7, 67-82	1.7	16
62	Steady state and mean recurrence time for random walks on stochastic temporal networks. <i>Physical Review E</i> , <b>2015</b> , 91, 012806	2.4	15
61	. <i>IEEE Transactions on Computational Social Systems</i> , <b>2019</b> , 6, 441-455	4.5	14
60	Growing network with j-redirection. <i>Europhysics Letters</i> , <b>2007</b> , 77, 58002	1.6	14
59	Random Walks on Stochastic Temporal Networks. <i>Understanding Complex Systems</i> , <b>2013</b> , 295-313	0.4	14

58	Input-output relationship in social communications characterized by spike train analysis. <i>Physical Review E</i> , <b>2016</b> , 94, 042313	2.4	13
57	Onset of anomalous diffusion from local motion rules. <i>Physical Review E</i> , <b>2017</b> , 95, 022113	2.4	12
56	Role of second trials in cascades of information over networks. <i>Physical Review E</i> , <b>2009</b> , 79, 016114	2.4	12
55	Densification and structural transitions in networks that grow by node copying. <i>Physical Review E</i> , <b>2016</b> , 94, 062302	2.4	12
54	Majority rule on heterogeneous networks. <i>Journal of Physics A: Mathematical and Theoretical</i> , <b>2008</b> , 41, 224021	2	11
53	Modelling non-linear consensus dynamics on hypergraphs. <i>Journal of Physics Complexity</i> , <b>2021</b> , 2, 025006	1.8	11
52	Multilevel Local Optimization of Modularity <b>2013</b> , 315-345		10
51	Granular matter: A wonderful world of clusters in far-from-equilibrium systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2005</b> , 357, 337-349	3.3	10
50	Relating Modularity Maximization and Stochastic Block Models in Multilayer Networks. <i>SIAM Journal on Mathematics of Data Science</i> , <b>2019</b> , 1, 667-698	3.1	10
49	Random walk on temporal networks with lasting edges. <i>Physical Review E</i> , <b>2018</b> , 98,	2.4	10
48	Different Approaches to Community Detection <b>2019</b> , 105-119		10
47	Mining open datasets for transparency in taxi transport in metropolitan environments. <i>EPJ Data Science</i> , <b>2015</b> , 4, 23	3.4	9
46	Preferential attachment with partial information. <i>European Physical Journal B</i> , <b>2015</b> , 88, 1	1.2	8
45	On co-evolution and the importance of initial conditions. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2011</b> , 390, 392-397	3.3	8
44	Psychological Aspects of Social Communities <b>2012</b> ,		8
43	ANDRZEJ PŁAŚKI NETWORKS OF SCIENTIFIC INTERESTS WITH INTERNAL DEGREES OF FREEDOM THROUGH SELF-CITATION ANALYSIS. <i>International Journal of Modern Physics C</i> , <b>2008</b> , 19, 371-384	1.1	8
42	Truncated L <sup>q</sup> y distributions in an inelastic gas. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2005</b> , 345, 309-313	2.3	8
41	Energy nonequipartition in multicomponent granular mixtures. <i>Physical Review E</i> , <b>2005</b> , 72, 042301	2.4	8

40	Time-evolving distribution of time lags between commercial airline disasters. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2006</b> , 362, 513-524	3.3	7
39	Drastic events make evolving networks. <i>European Physical Journal B</i> , <b>2007</b> , 57, 89-94	1.2	6
38	Random walks and community detection in hypergraphs. <i>Journal of Physics Complexity</i> , <b>2021</b> , 2, 015011	1.8	6
37	Burstiness and fractional diffusion on complex networks. <i>European Physical Journal B</i> , <b>2016</b> , 89, 1	1.2	6
36	Co-occurrence simplicial complexes in mathematics: identifying the holes of knowledge. <i>Applied Network Science</i> , <b>2018</b> , 3, 37	2.9	6
35	Identifying exogenous and endogenous activity in social media. <i>Physical Review E</i> , <b>2018</b> , 98,	2.4	6
34	Dynamics of majority rule on hypergraphs. <i>Physical Review E</i> , <b>2021</b> , 104, 024316	2.4	6
33	Multi-scale Modularity and Dynamics in Complex Networks. <i>Modeling and Simulation in Science, Engineering and Technology</i> , <b>2013</b> , 125-141	0.8	6
32	Sufficient conditions of endemic threshold on metapopulation networks. <i>Journal of Theoretical Biology</i> , <b>2015</b> , 380, 134-43	2.3	5
31	Stationarity of the inter-event power-law distributions. <i>PLoS ONE</i> , <b>2017</b> , 12, e0174509	3.7	5
30	Classes of random walks on temporal networks with competing timescales. <i>Applied Network Science</i> , <b>2019</b> , 4,	2.9	5
29	Graph spectral characterization of the XY model on complex networks. <i>Physical Review E</i> , <b>2017</b> , 96, 012314	1.4	5
28	Energy and number of collision fluctuations in inelastic gases. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2007</b> , 375, 227-232	3.3	5
27	Activity ageing in growing networks. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2007</b> , 2007, P02020-P02020	1.9	5
26	Coupled tensor decomposition: A step towards robust components <b>2016</b> ,		5
25	Nonlinear Network Dynamics with ConsensusDissensus Bifurcation. <i>Journal of Nonlinear Science</i> , <b>2021</b> , 31, 1	2.8	5
24	The geography and carbon footprint of mobile phone use in Cote d'Ivoire. <i>EPJ Data Science</i> , <b>2014</b> , 3,	3.4	4
23	Temporal pattern of online communication spike trains in spreading a scientific rumor: how often, who interacts with whom?. <i>Frontiers in Physics</i> , <b>2015</b> , 3,	3.9	4

22	Imperfect spreading on temporal networks. <i>European Physical Journal B</i> , <b>2015</b> , 88, 1	1.2	4
21	Altered trajectories in the dynamical repertoire of functional network states under psilocybin		4
20	Nonlinear Consensus on Networks: Equilibria, Effective Resistance, and Trees of Motifs. <i>SIAM Journal on Applied Dynamical Systems</i> , <b>2021</b> , 20, 1544-1570	2.8	4
19	Consensus dynamics on temporal hypergraphs.. <i>Physical Review E</i> , <b>2021</b> , 104, 064305	2.4	4
18	Backtracking and Mixing Rate of Diffusion on Uncorrelated Temporal Networks. <i>Entropy</i> , <b>2017</b> , 19, 542	2.8	3
17	Rich gets simpler. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 9961-2	11.5	2
16	Temporal Pattern of (Re)tweets Reveal Cascade Migration <b>2017</b> ,		2
15	Random Walks on Dense Graphs and Graphons. <i>SIAM Journal on Applied Mathematics</i> , <b>2021</b> , 81, 2323-2345		2
14	Structured Networks and Coarse-Grained Descriptions <b>2019</b> , 333-361		2
13	RockPaperScissors dynamics from random walks on temporal multiplex networks. <i>Journal of Complex Networks</i> , <b>2020</b> , 8,	1.7	2
12	Opinion Dynamics with Multi-body Interactions. <i>Communications in Computer and Information Science</i> , <b>2021</b> , 261-271	0.3	2
11	RankMerging: a supervised learning-to-rank framework to predict links in large social networks. <i>Machine Learning</i> , <b>2019</b> , 108, 1729-1756	4	1
10	Decentralized routing on spatial networks with stochastic edge weights. <i>Physical Review E</i> , <b>2013</b> , 88, 022815	2.4	1
9	On high-energy tails in inelastic gases. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2006</b> , 366, 250-254	3.3	1
8	Consensus Dynamics and Opinion Formation on Hypergraphs. <i>Understanding Complex Systems</i> , <b>2022</b> , 347-376	0.4	1
7	Consensus from group interactions: An adaptive voter model on hypergraphs. <i>Physical Review E</i> , <b>2022</b> , 105,	2.4	1
6	Brexit and bots: characterizing the behaviour of automated accounts on Twitter during the UK election.. <i>EPJ Data Science</i> , <b>2022</b> , 11, 17	3.4	0
5	Flow-Based Community Detection in Hypergraphs. <i>Understanding Complex Systems</i> , <b>2022</b> , 141-161	0.4	0



- 4 Flow stability for dynamic community detection.. *Science Advances*, **2022**, 8, eabj3063 14.3 0
- 3 Analysis of metapopulation epidemic process on arbitrary networks. *IFAC-PapersOnLine*, **2015**, 48, 141-145
- 2 Continuous-Time Random Walks and Temporal Networks. *Computational Social Sciences*, **2019**, 219-233 0.7
- 1 The struggle for existence in the world market ecosystem. *PLoS ONE*, **2018**, 13, e0203915 3.7