Stefano Allesina

List of Publications by Year
in descending order

88 papers	7,921 citations	71102 41 h-index	56724 83 g-index
103 all docs	103 docs citations	103 times ranked	7537 citing authors

#	Article	IF	Citations
1	Stability criteria for complex ecosystems. Nature, 2012, 483, 205-208.	27.8	900
2	Parasites in food webs: the ultimate missing links. Ecology Letters, 2008, 11, 533-546.	6.4	716
3	Beyond pairwise mechanisms of species coexistence in complex communities. Nature, 2017, 546, 56-64.	27.8	544
4	Higher-order interactions stabilize dynamics in competitive network models. Nature, 2017, 548, 210-213.	27.8	389
5	A competitive network theory of species diversity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5638-5642.	7.1	289
6	The dimensionality of ecological networks. Ecology Letters, 2013, 16, 577-583.	6.4	246
7	The ghost of nestedness in ecological networks. Nature Communications, 2013, 4, 1391.	12.8	225
8	A General Model for Food Web Structure. Science, 2008, 320, 658-661.	12.6	217
9	Predicting scientific success. Nature, 2012, 489, 201-202.	27.8	209
10	Modularity and stability in ecological communities. Nature Communications, 2016, 7, 12031.	12.8	208
11	The stabilityâ€“complexity relationship at age 40: a random matrix perspective. Population Ecology, 2015, 57, 63-75.	1.2	186
12	Network structure, predatorâ€“prey modules, and stability in large food webs. Theoretical Ecology, 2008, 1, 55-64.	1.0	184
13	Googling Food Webs: Can an Eigenvector Measure Species' Importance for Coextinctions?. PLoS Computational Biology, 2009, 5, e1000494.	3.2	167
14	The Effect of Intra- and Interspecific Competition on Coexistence in Multispecies Communities. American Naturalist, 2016, 188, E1-E12.	2.1	131
15	Who dominates whom in the ecosystem? Energy flow bottlenecks and cascading extinctions. Journal of Theoretical Biology, 2004, 230, 351-358.	1.7	123
16	Food web models: a plea for groups. Ecology Letters, 2009, 12, 652-662.	6.4	118
17	Feasibility and coexistence of large ecological communities. Nature Communications, 2017, 8, .	12.8	115
18	Correlation between interaction strengths drives stability in large ecological networks. Ecology Letters, 2014, 17, 1094-1100.	6.4	113

#	Article	IF	Citations
19	Predicting the stability of large structured food webs. Nature Communications, 2015, 6, 7842.	12.8	108
20	The Scientific Impact of Nations: Journal Placement and Citation Performance. PLoS ONE, 2014, 9, e109195.	2.5	103
21	Operationalizing Network Theory for Ecosystem Service Assessments. Trends in Ecology and Evolution, 2017, 32, 118-130.	8.7	103
22	Coexistence of many species in random ecosystems. Nature Ecology and Evolution, 2018, 2, 1237-1242.	7.8	90
23	Selection on stability across ecological scales. Trends in Ecology and Evolution, 2015, 30, 417-425.	8.7	86
24	Self-regulation and the stability of large ecological networks. Nature Ecology and Evolution, 2017, 1, 1870-1875.	7.8	86
25	Functional links and robustness in food webs. Philosophical Transactions of the Royal Society B: Biological Sciences, 2009, 364, 1701-1709.	4.0	85
26	WAND: an ecological network analysis user-friendly tool. Environmental Modelling and Software, 2004, 19, 337-340.	4.5	81
27	Linking the green and brown worlds: the prevalence and effect of multichannel feeding in food webs. Ecology, 2014, 95, 3376-3386.	3.2	79
28	Steady state of ecosystem flow networks: a comparison between balancing procedures. Ecological Modelling, 2003, 165, 221-229.	2.5	73
29	Effect of localization on the stability of mutualistic ecological networks. Nature Communications, 2015, 6, 10179.	12.8	70
30	Relevance of evolutionary history for food web structure. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 1588-1596.	2.6	69
31	Cities as ecosystems: Growth, development and implications for sustainability. Ecological Modelling, 2012, 245, 185-198.	2.5	67
32	Characterizing a scientific elite: the social characteristics of the most highly cited scientists in environmental science and ecology. Scientometrics, 2010, 85, 129-143.	3.0	66
33	Cycling in ecological networks: Finnâ€™s index revisited. Computational Biology and Chemistry, 2004, 28, 227-233.	2.3	64
34	Temporal dynamics of gene expression in heat-stressed Caenorhabditis elegans. PLoS ONE, 2017, 12, e0189445.	2.5	62
35	Effect of population abundances on the stability of large random ecosystems. Physical Review E, 2018, 98, 022410.	2.1	58
36	Spatial Guilds in the Serengeti Food Web Revealed by a Bayesian Group Model. PLoS Computational Biology, 2011, 7, e1002321.	3.2	57

#	Article	IF	Citations
37	Ecological subsystems via graph theory: the role of strongly connected components. Oikos, 2005, 110, 164-176.	2.7	55
38	Secondary extinctions in ecological networks: Bottlenecks unveiled. Ecological Modelling, 2006, 194, 150-161.	2.5	55
39	Reactivity and stability of large ecosystems. Frontiers in Ecology and Evolution, 2014, 2, .	2.2	53
40	Measuring Nepotism through Shared Last Names: The Case of Italian Academia. PLoS ONE, 2011, 6, e21160.	2.5	52
41	Ecological Network Inference From Long-Term Presence-Absence Data. Scientific Reports, 2017, 7, 7154.	3.3	50
42	Transcriptome resilience predicts thermotolerance in Caenorhabditis elegans. BMC Biology, 2019, 17, 102.	3.8	50
43	Metapopulation Persistence in Random Fragmented Landscapes. PLoS Computational Biology, 2015, 11, e1004251.	3.2	49
44	The consequences of the aggregation of detritus pools in ecological networks. Ecological Modelling, 2005, 189, 221-232.	2.5	45
45	Secondary extinctions in food webs: a Bayesian network approach. Methods in Ecology and Evolution, 2013, 4, 760-770.	5.2	45
46	Network spandrels reflect ecological assembly. Ecology Letters, 2018, 21, 324-334.	6.4	45
47	Predicting coexistence in experimental ecological communities. Nature Ecology and Evolution, 2020, 4, 91-100.	7.8	45
48	Drivers of compartmentalization in a Mediterranean pollination network. Oikos, 2012, 121, 2001-2013.	2.7	44
49	Detecting Stress at the Whole-Ecosystem Level: The Case of a Mountain Lake (Lake Santo, Italy). Ecosystems, 2006, 9, 768-787.	3.4	43
50	Characterizing a scientific elite (B): publication and citation patterns of the most highly cited scientists in environmental science and ecology. Scientometrics, 2013, 94, 469-480.	3.0	42
51	Phenotypic Plasticity Opposes Species Invasions by Altering Fitness Surface. PLoS Biology, 2006, 4, e372.	5.6	35
52	Food webs: Ordering species according to body size yields high degree of intervality. Journal of Theoretical Biology, 2011, 271, 106-113.	1.7	35
53	Ten Simple (Empirical) Rules for Writing Science. PLoS Computational Biology, 2015, 11, e1004205.	3.2	35
54	What Can Interaction Webs Tell Us About Species Roles?. PLoS Computational Biology, 2015, 11, e1004330.	3.2	34

#	Article	IF	Citations
55	Using food web dominator trees to catch secondary extinctions in action. Philosophical Transactions of the Royal Society B: Biological Sciences, 2009, 364, 1725-1731.	4.0	32
56	Tractable models of ecological assembly. Ecology Letters, 2021, 24, 1029-1037.	6.4	32
57	And, not or: Quality, quantity in scientific publishing. PLoS ONE, 2017, 12, e0178074.	2.5	31
58	Towards a use of network analysis: quantifying the complexity of Supply Chain Networks. International Journal of Electronic Customer Relationship Management, 2007, 1, 75.	0.2	30
59	Phenotypic variability promotes diversity and stability in competitive communities. Ecology Letters, 2019, 22, 1776-1786.	6.4	30
60	Gene regulatory network stabilized by pervasive weak repressions: microRNA functions revealed by the Mayâ€"Wigner theory. National Science Review, 2019, 6, 1176-1188.	9.5	30
61	The Song Overlap Null model Generator (SONG): a new tool for distinguishing between random and non-random song overlap. Bioacoustics, 2016, 25, 29-40.	1.7	29
62	Interaction rules affect species coexistence in intransitive networks. Ecology, 2011, 92, 1174-1180.	3.2	27
63	Using trophic hierarchy to understand food web structure. Oikos, 2009, 118, 1695-1702.	2.7	23
64	Predicting trophic relations in ecological networks: A test of the Allometric Diet Breadth Model. Journal of Theoretical Biology, 2011, 279, 161-168.	1.7	22
65	The assembly, collapse and restoration of food webs. Philosophical Transactions of the Royal Society B: Biological Sciences, 2009, 364, 1803-1806.	4.0	21
66	Last name analysis of mobility, gender imbalance, and nepotism across academic systems. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7600-7605.	7.1	21
67	Metapopulations with habitat modification. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	21
68	Food web networks: Scaling relation revisited. Ecological Complexity, 2005, 2, 323-338.	2.9	20
69	Frequency-Dependent Selection Predicts Patterns of Radiations and Biodiversity. PLoS Computational Biology, 2010, 6, e1000892.	3.2	20
70	Telling ecological networks apart by their structure: A computational challenge. PLoS Computational Biology, 2019, 15, e1007076.	3.2	20
71	Does Sex Speed Up Evolutionary Rate and Increase Biodiversity?. PLoS Computational Biology, 2012, 8, e1002414.	3.2	17
72	Effective trophic positions in ecological acyclic networks. Ecological Modelling, 2006, 198, 495-505.	2.5	16

#	Article	IF	Citations
73	The more the merrier. Nature, 2012, 487, 175-176.	27.8	16
74	Understanding the role of parasites in food webs using the group model. Journal of Animal Ecology, 2018, 87, 790-800.	2.8	16
75	Predicting global community properties from uncertain estimates of interaction strengths. Journal of the Royal Society Interface, 2015, 12, 20150218.	3.4	15
76	A new computational system, DOVE (Digital Organisms in a Virtual Ecosystem), to study phenotypic plasticity and its effects in food webs. Ecological Modelling, 2007, 205, 13-28.	2.5	13
77	Interaction rules affect species coexistence in intransitive networks. Ecology, 2011, 92, 1174-1180.	3.2	13
78	Reconciling empirical interactions and species coexistence. Ecology Letters, 2019, 22, 1028-1037.	6.4	11
79	Local stability properties of complex, speciesâ€rich soil food webs with functional block structure. Ecology and Evolution, 2021, 11, 16070-16081.	1.9	11
80	Selecting food web models using normalized maximum likelihood. Methods in Ecology and Evolution, 2014, 5, 551-562.	5.2	10
81	Ecological networks: Pursuing the shortest path, however narrow and crooked. Scientific Reports, 2019, 9, 17826.	3.3	10
82	Good news for the people who love bad news: an analysis of the funding of the top 1% most highly cited ecologists. Oikos, 2012, 121, 1005-1008.	2.7	9
83	Ocean acidification affects competition for space: projections of community structure using cellular automata. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20152561.	2.6	8
84	No robust multispecies coexistence in a canonical model of plantâ€“soil feedbacks. Ecology Letters, 2022, 25, 1690-1698.	6.4	8
85	With Great Power Comes Great Responsibility: the Importance of Rejection, Power, and Editors in the Practice of Scientific Publishing. PLoS ONE, 2013, 8, e85382.	2.5	4
86	Stability and feedback levels in food web models. Ecology Letters, 2015, 18, 593-595.	6.4	3
87	Cities as Ecosystems. Developments in Environmental Modelling, 2012, , 297-318.	0.3	2
88	Frequency-dependent selection predicts patterns of radiations and biodiversity. Nature Precedings, 2009, , .	0.1	0