

# Simon Garnier

## 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.

43  
papers

2,404  
citations

21  
h-index

47  
g-index

47  
ext. papers

2,900  
ext. citations

4.8  
avg, IF

4.94  
L-index

#	Paper	IF	Citations
43	The walking behaviour of pedestrian social groups and its impact on crowd dynamics. <i>PLoS ONE</i> , <b>2010</b> , 5, e10047	3.7	573
42	The biological principles of swarm intelligence. <i>Swarm Intelligence</i> , <b>2007</b> , 1, 3-31	3	306
41	Experimental study of the behavioural mechanisms underlying self-organization in human crowds. <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2009</b> , 276, 2755-62	4.4	300
40	Visual attention and the acquisition of information in human crowds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 7245-50	11.5	142
39	Collective information processing and pattern formation in swarms, flocks, and crowds. <i>Topics in Cognitive Science</i> , <b>2009</b> , 1, 469-97	2.5	116
38	Both information and social cohesion determine collective decisions in animal groups. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 5263-8	11.5	106
37	Individual rules for trail pattern formation in Argentine ants ( <i>Linepithema humile</i> ). <i>PLoS Computational Biology</i> , <b>2012</b> , 8, e1002592	5	89
36	Self-Organized Aggregation Triggers Collective Decision Making in a Group of Cockroach-Like Robots. <i>Adaptive Behavior</i> , <b>2009</b> , 17, 109-133	1.1	67
35	Army ants dynamically adjust living bridges in response to a cost-benefit trade-off. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 15113-8	11.5	66
34	The embodiment of cockroach aggregation behavior in a group of micro-robots. <i>Artificial Life</i> , <b>2008</b> , 14, 387-408	1.4	65
33	Alice in Pheromone Land: An Experimental Setup for the Study of Ant-like Robots <b>2007</b> ,		57
32	Decision-making without a brain: how an amoeboid organism solves the two-armed bandit. <i>Journal of the Royal Society Interface</i> , <b>2016</b> , 13,	4.1	50
31	Artificial pheromone for path selection by a foraging swarm of robots. <i>Biological Cybernetics</i> , <b>2010</b> , 103, 339-52	2.8	46
30	Information integration and multiattribute decision making in non-neuronal organisms. <i>Animal Behaviour</i> , <b>2015</b> , 100, 44-50	2.8	41
29	Path selection and foraging efficiency in Argentine ant transport networks. <i>Behavioral Ecology and Sociobiology</i> , <b>2009</b> , 63, 1167-1179	2.5	37
28	Self-organized discrimination of resources. <i>PLoS ONE</i> , <b>2011</b> , 6, e19888	3.7	35
27	Do ants need to estimate the geometrical properties of trail bifurcations to find an efficient route? A swarm robotics test bed. <i>PLoS Computational Biology</i> , <b>2013</b> , 9, e1002903	5	33

26	Aggregation Behaviour as a Source of Collective Decision in a Group of Cockroach-Like-Robots. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 169-178	0.9	33
25	A cellular platform for the development of synthetic living machines. <i>Science Robotics</i> , <b>2021</b> , 6,	18.6	29
24	Are ants sensitive to the geometry of tunnel bifurcation?. <i>Animal Cognition</i> , <b>2008</b> , 11, 637-42	3.1	24
23	Stability and responsiveness in a self-organized living architecture. <i>PLoS Computational Biology</i> , <b>2013</b> , 9, e1002984	5	22
22	Predicting Dynamical Crime Distribution From Environmental and Social Influences. <i>Frontiers in Applied Mathematics and Statistics</i> , <b>2018</b> , 4,	2.2	20
21	Architecture, space and information in constructions built by humans and social insects: a conceptual review. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2018</b> , 373,	5.8	20
20	Decoding collective communications using information theory tools. <i>Journal of the Royal Society Interface</i> , <b>2020</b> , 17, 20190563	4.1	18
19	Genetic lineage tracing of targeted cell populations during entheses healing. <i>Journal of Orthopaedic Research</i> , <b>2018</b> , 36, 3275-3284	3.8	17
18	Information Transfer During Food Choice in the Slime Mold <i>Physarum polycephalum</i> . <i>Frontiers in Ecology and Evolution</i> , <b>2019</b> , 7,	3.7	14
17	From Ants to Robots and Back: How Robotics Can Contribute to the Study of Collective Animal Behavior. <i>Studies in Computational Intelligence</i> , <b>2011</b> , 105-120	0.8	13
16	Optimal construction of army ant living bridges. <i>Journal of Theoretical Biology</i> , <b>2017</b> , 435, 184-198	2.3	9
15	Contact Calls Facilitate Group Contraction in Free-Ranging Goats ( <i>Capra aegagrus hircus</i> ). <i>Frontiers in Ecology and Evolution</i> , <b>2019</b> , 7,	3.7	8
14	Estimation models describe well collective decisions among three options. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, E3466-7	11.5	8
13	From individual to collective dynamics in Argentine ants ( <i>Linepithema humile</i> ). <i>Mathematical Biosciences</i> , <b>2015</b> , 262, 56-64	3.9	7
12	Hysteresis stabilizes dynamic control of self-assembled army ant constructions.. <i>Nature Communications</i> , <b>2022</b> , 13, 1160	17.4	6
11	The adaptive significance of phasic colony cycles in army ants. <i>Journal of Theoretical Biology</i> , <b>2017</b> , 428, 43-47	2.3	5
10	Methods for the effective study of collective behavior in a radial arm maze. <i>Behavior Research Methods</i> , <b>2018</b> , 50, 1673-1685	6.1	5
9	Individual error correction drives responsive self-assembly of army ant scaffolds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	4

8	Ant colonies: building complex organizations with minuscule brains and no leaders. <i>Journal of Organization Design</i> , <b>2021</b> , 10, 55-74	1.4	4
7	Consensus of travel direction is achieved by simple copying, not voting, in free-ranging goats. <i>Royal Society Open Science</i> , <b>2021</b> , 8, 201128	3.3	3
6	Temporal and spatial pattern of trail clearing in the Australian meat ant, <i>Iridomyrmex purpureus</i> . <i>Animal Behaviour</i> , <b>2019</b> , 150, 97-111	2.8	2
5	Ant Collective Behavior Is Heritable and Shaped by Selection. <i>American Naturalist</i> , <b>2020</b> , 196, 541-554	3.7	2
4	ANTS 2014 special issue: Editorial. <i>Swarm Intelligence</i> , <b>2015</b> , 9, 71-73	3	1
3	Simulated poaching affects global connectivity and efficiency in social networks of African savanna elephants - an exemplar of how human disturbance impacts group-living species		1
2	Simulated poaching affects global connectivity and efficiency in social networks of African savanna elephants-An exemplar of how human disturbance impacts group-living species.. <i>PLoS Computational Biology</i> , <b>2022</b> , 18, e1009792	5	0
1	Collective Pulsing in Xeniid Corals: Part I-Using Computer Vision and Information Theory to Search for Coordination. <i>Bulletin of Mathematical Biology</i> , <b>2020</b> , 82, 90	2.1	