

# Vincent FourcassiÃ©

## List of Publications by Year in descending order

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Version: 2024-02-01

66  
papers

2,224  
citations

236925

25  
h-index

233421

45  
g-index

70  
all docs

70  
docs citations

70  
times ranked

1656  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimal traffic organization in ants under crowded conditions. <i>Nature</i> , 2004, 428, 70-73.	27.8	308
2	Spatial patterns in ant colonies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 9645-9649.	7.1	195
3	Individual Rules for Trail Pattern Formation in Argentine Ants ( <i>Linepithema humile</i> ). <i>PLoS Computational Biology</i> , 2012, 8, e1002592.	3.2	137
4	A model of animal movements in a bounded space. <i>Journal of Theoretical Biology</i> , 2003, 225, 443-451.	1.7	134
5	Amplification of individual preferences in a social context: the case of wall-following in ants. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2005, 272, 705-714.	2.6	96
6	Key Factors for the Emergence of Collective Decision in Invertebrates. <i>Frontiers in Neuroscience</i> , 2012, 6, 121.	2.8	72
7	Path efficiency of ant foraging trails in an artificial network. <i>Journal of Theoretical Biology</i> , 2006, 239, 507-515.	1.7	68
8	Ant traffic rules. <i>Journal of Experimental Biology</i> , 2010, 213, 2357-2363.	1.7	63
9	Nonrandom search geometry in subterranean termites. <i>Die Naturwissenschaften</i> , 1995, 82, 526-528.	1.6	59
10	Temporal organization of bi-directional traffic in the ant <i>Lasius niger</i> (L.). <i>Journal of Experimental Biology</i> , 2005, 208, 2903-2912.	1.7	55
11	Foraging ecology of the giant Amazonian ant <i>Dinoponera gigantea</i> (Hymenoptera, Formicidae). <i>Tj ETQq1 1 0.784314 rgBT /Overlock 10</i> 2211-2227.	0.5	53
12	An experimental test of hypotheses explaining social segregation in dimorphic ungulates. <i>Animal Behaviour</i> , 2004, 68, 1371-1380.	1.9	50
13	Food searching behaviour in the ant <i>Formica schaufussi</i> (Hymenoptera, Formicidae): response of naive foragers to protein and carbohydrate food. <i>Animal Behaviour</i> , 1994, 48, 69-79.	1.9	48
14	Path selection and foraging efficiency in Argentine ant transport networks. <i>Behavioral Ecology and Sociobiology</i> , 2009, 63, 1167-1179.	1.4	47
15	The dynamics of collective exploration and trail-formation in <i>Monomorium pharaonis</i> : experiments and model. <i>Physiological Entomology</i> , 1994, 19, 291-300.	1.5	46
16	Individual and collective problem-solving in a foraging context in the leaf-cutting ant <i>Atta colombica</i> . <i>Animal Cognition</i> , 2009, 12, 21-30.	1.8	41
17	Collective decisions in ants when foraging under crowded conditions. <i>Behavioral Ecology and Sociobiology</i> , 2006, 61, 17-30.	1.4	40
18	Priority rules govern the organization of traffic on foraging trails under crowding conditions in the leaf-cutting ant <i>Atta colombica</i> . <i>Journal of Experimental Biology</i> , 2009, 212, 499-505.	1.7	40

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19	Crowding increases foraging efficiency in the leaf-cutting ant <i>Atta colombica</i> . <i>Insectes Sociaux</i> , 2007, 54, 158-165.	1.2	37
20	How do red wood ants orient during diurnal and nocturnal foraging in a three dimensional system? II. Field experiments. <i>Insectes Sociaux</i> , 1988, 35, 106-124.	1.2	36
21	How do red wood ants orient when foraging in a three dimensional system? I. Laboratory experiments. <i>Insectes Sociaux</i> , 1988, 35, 92-105.	1.2	32
22	Self-Organization Patterns in Wasp and Open Source Communities. <i>IEEE Intelligent Systems</i> , 2006, 21, 36-40.	4.0	31
23	Information transfer during recruitment in the ant <i>Lasius niger</i> L. (Hymenoptera: Formicidae). <i>Behavioral Ecology and Sociobiology</i> , 2004, 55, 242-250.	1.4	30
24	Does substrate coarseness matter for foraging ants? An experiment with <i>Lasius niger</i> (Hymenoptera; Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302	2.0	28
25	Phase-ordering kinetics of cemetery organization in ants. <i>Physical Review E</i> , 1998, 57, 4568-4571.	2.1	27
26	Are ants sensitive to the geometry of tunnel bifurcation?. <i>Animal Cognition</i> , 2008, 11, 637-642.	1.8	25
27	Lifespan behavioural and neural resilience in a social insect. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2016, 283, 20152603.	2.6	24
28	Landmark orientation in natural situations in the red wood ant <i>Formica lugubris</i> Zett. (Hymenoptera) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302	1.4	22
29	From individual to collective displacements in heterogeneous environments. <i>Journal of Theoretical Biology</i> , 2008, 250, 424-434.	1.7	22
30	Effects of experience on food-searching behavior in the ant <i>Formica schaufussi</i> (Hymenoptera: Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302	0.7	21
31	Search behavior and foraging ecology of the ant <i>Formica schaufussi</i> : colony-level and individual patterns. <i>Ethology Ecology and Evolution</i> , 1991, 3, 35-47.	1.4	20
32	Fractal analysis of search behavior in ants. <i>Die Naturwissenschaften</i> , 1992, 79, 87-89.	1.6	20
33	Dispersion movements in ants: spatial structuring and density-dependent effects. <i>Behavioural Processes</i> , 2003, 63, 33-43.	1.1	20
34	Ecology and field biology of two dominant <i>Camponotus</i> ants (Hymenoptera: Formicidae) in the Brazilian savannah. <i>Journal of Natural History</i> , 2018, 52, 237-252.	0.5	17
35	Differential responses to chemical cues correlate with task performance in ant foragers. <i>Behavioral Ecology and Sociobiology</i> , 2019, 73, 1.	1.4	17
36	Nesting patterns, ecological correlates of polygyny and social organization in the neotropical arboreal ant <i>Odontomachus hastatus</i> (Formicidae, Ponerinae). <i>Insectes Sociaux</i> , 2011, 58, 207-217.	1.2	16

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37	Effect of substrate roughness on load selection in the seed-harvester ant <i>Messor barbarus</i> L. (Hymenoptera, Formicidae). <i>Behavioral Ecology and Sociobiology</i> , 2011, 65, 1763-1771.	1.4	14
38	Ergonomics of load transport in the seed harvesting ant <i>Messor barbarus</i> Linn�us, 1767: morphology influences transportation method and efficiency. <i>Journal of Experimental Biology</i> , 2016, 219, 2920-2927.	1.7	14
39	Accessibility in networks: A useful measure for understanding social insect nest architecture. <i>Chaos, Solitons and Fractals</i> , 2013, 46, 38-45.	5.1	13
40	Contact rate modulates foraging efficiency in leaf cutting ants. <i>Scientific Reports</i> , 2015, 5, 18650.	3.3	13
41	A new test of random walks in heterogeneous environments. <i>Die Naturwissenschaften</i> , 2005, 92, 367-370.	1.6	12
42	Comparative study of resistance to heat in two species of leaf-cutting ants. <i>Insectes Sociaux</i> , 2015, 62, 97-99.	1.2	12
43	Foraging activity pattern and herbivory rates of the grass-cutting ant <i>Atta capiguara</i> . <i>Insectes Sociaux</i> , 2016, 63, 421-428.	1.2	12
44	Attraction of <i>Varroa jacobsoni</i> , parasite of <i>Apis mellifera</i> by electrical charges. <i>Journal of Insect Physiology</i> , 1992, 38, 111-117.	2.0	11
45	Orientation and navigation during adult transport between nests in the ant <i>Cataglyphis iberica</i> . <i>Die Naturwissenschaften</i> , 2000, 87, 355-359.	1.6	11
46	Physical and land-cover variables influence ant functional groups and species diversity along elevational gradients. <i>Landscape Ecology</i> , 2013, 28, 1387-1400.	4.2	11
47	Ant community organization along elevational gradients in a temperate ecosystem. <i>Insectes Sociaux</i> , 2015, 62, 59-71.	1.2	11
48	Dynamics of foraging trails in the Neotropical termite <i>Velocitermes heteropterus</i> (Isoptera: Termitidae). <i>Journal of Experimental Biology</i> , 2016, 219, 5030-5032.	1.1	11
49	Spatio-Temporal Dynamics of Foraging Networks in the Grass-Cutting Ant <i>Atta bisphaerica</i> Forel, 1908 (Formicidae, Attini). <i>PLoS ONE</i> , 2016, 11, e0146613.	2.5	10
50	Walking kinematics in the polymorphic seed harvester ant <i>Messor barbarus</i> : influence of body size and load carriage. <i>Journal of Experimental Biology</i> , 2020, 223, .	1.7	8
51	Dynamics of locomotion in the seed harvesting ant <i>Messor barbarus</i> : effect of individual body mass and transported load mass. <i>PeerJ</i> , 2021, 9, e10664.	2.0	8
52	Modeling Ant Behavior Under a Variable Environment. <i>Lecture Notes in Computer Science</i> , 2004, , 190-201.	1.3	8
53	Walking pattern efficiency during collective load transport. <i>Gait and Posture</i> , 2018, 64, 244-247.	1.4	7
54	A preliminary checklist of the ants (Hymenoptera, Formicidae) of Andorra. <i>ZooKeys</i> , 2013, 277, 13-23.	1.1	6

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55	Dynamics of physical trail construction and of trail usage in the leaf-cutting ant <i>Atta laevigata</i> . <i>Ethology Ecology and Evolution</i> , 2019, 31, 105-120.	1.4	6
56	Nonrandom Search Geometry in Subterranean Termites. <i>Die Naturwissenschaften</i> , 1995, 82, 526-528.	1.6	5
57	Impact of Interference Competition on Exploration and Food Exploitation in the Ant <i>Lasius niger</i> . <i>Psyche: Journal of Entomology</i> , 2012, 2012, 1-8.	0.9	4
58	A biomechanical study of load carriage by two paired subjects in response to increased load mass. <i>Scientific Reports</i> , 2021, 11, 4346.	3.3	4
59	Ant search behaviour analysis with a video frame grabber. <i>Insectes Sociaux</i> , 1995, 42, 249-254.	1.2	3
60	Dynamics of the restoration of physical trails in the grass-cutting ant <i>Atta capiguara</i> (Hymenoptera). <i>Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5</i>	0.4	3
61	Limited size-related variation in behavioral performance among workers of the exceptionally polymorphic ant <i>Pheidole rhea</i> . <i>Insectes Sociaux</i> , 2018, 65, 431-438.	1.2	3
62	Locomotor pattern and mechanical exchanges during collective load transport. <i>Human Movement Science</i> , 2019, 66, 327-334.	1.4	3
63	Analysis of gait during independent and paired walking in adults with an intellectual disability: A case report.. <i>Journal of Rehabilitation Medicine Clinical Communications</i> , 2018, 1, 1000009.	0.6	1
64	In memoriam Jacques Gervet (1934–2018). <i>Insectes Sociaux</i> , 2019, 66, 501-502.	1.2	0
65	Longitudinal Study of Foraging Networks in the Grass-Cutting Ant <i>Atta capiguara</i> Gonçalves, 1944. <i>Neotropical Entomology</i> , 2020, 49, 643-651.	1.2	0
66	Walking and foraging activity of <i>Acromyrmex subterraneus molestans</i> (Hymenoptera). <i>Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302</i>	1.5	0