

Charlotte K Hemelrijk

List of Publications by Year in descending order

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Version: 2024-02-01

128
papers

6,820
citations

87401

40
h-index

75989

78
g-index

141
all docs

141
docs citations

141
times ranked

5723
citing authors

#	ARTICLE	IF	CITATIONS
1	Causes of variation of darkness in flocks of starlings, a computational model. <i>Swarm Intelligence</i> , 2022, 16, 91-105.	1.3	2
2	Self-organization of collective escape in pigeon flocks. <i>PLoS Computational Biology</i> , 2022, 18, e1009772.	1.5	23
3	Hierarchical development of dominance through the winner-loser effect and socio-spatial structure. <i>PLoS ONE</i> , 2022, 17, e0243877.	1.1	1
4	Emergence of splits and collective turns in pigeon flocks under predation. <i>Royal Society Open Science</i> , 2022, 9, 211898.	1.1	17
5	Optimization of dynamic soaring in a flap-gliding seabird affects its large-scale distribution at sea. <i>Science Advances</i> , 2022, 8, .	4.7	18
6	Optimization of avian perching manoeuvres. <i>Nature</i> , 2022, 607, 91-96.	13.7	12
7	Attack behaviour in naive gyrfalcons is modelled by the same guidance law as in peregrine falcons, but at a lower guidance gain. <i>Journal of Experimental Biology</i> , 2021, 224, .	0.8	12
8	Aerial attack strategies of hawks hunting bats, and the adaptive benefits of swarming. <i>Behavioral Ecology</i> , 2021, 32, 464-476.	1.0	10
9	Female emancipation in a male dominant, sexually dimorphic primate under natural conditions. <i>PLoS ONE</i> , 2021, 16, e0249039.	1.1	10
10	A semi-empirical model of the aerodynamics of manoeuvring insect flight. <i>Journal of the Royal Society Interface</i> , 2021, 18, 20210103.	1.5	9
11	Absence of "selfish herd" dynamics in bird flocks under threat. <i>Current Biology</i> , 2021, 31, 3192-3198.e7.	1.8	34
12	Calibration of multiple cameras for large-scale experiments using a freely moving calibration target. <i>Experiments in Fluids</i> , 2020, 61, 1.	1.1	6
13	Modelling non-attentional visual information transmission in groups under predation. <i>Ecological Modelling</i> , 2020, 431, 109073.	1.2	1
14	Dynamics of Intersexual Dominance and Adult Sex- Ratio in Wild Vervet Monkeys. <i>Frontiers in Psychology</i> , 2020, 11, 839.	1.1	18
15	An Algorithmic Approach to Natural Behavior. <i>Current Biology</i> , 2020, 30, R663-R675.	1.8	35
16	The 2020 motile active matter roadmap. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 193001.	0.7	242
17	On the morphology and evolution of cicadomorphan tymbal organs. <i>Arthropod Structure and Development</i> , 2020, 55, 100918.	0.8	5
18	Damping of waves of agitation in starling flocks. <i>Behavioral Ecology and Sociobiology</i> , 2019, 73, 1.	0.6	5

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19	On the morphology and possible function of two putative vibroacoustic mechanisms in derbid planthoppers (Hemiptera: Fulgoromorpha: Derbidae). <i>Arthropod Structure and Development</i> , 2019, 52, 100880.	0.8	5
20	Complex patterns of collective escape in starling flocks under predation. <i>Behavioral Ecology and Sociobiology</i> , 2019, 73, 10.	0.6	42
21	Birds invest wingbeats to keep a steady head and reap the ultimate benefits of flying together. <i>PLoS Biology</i> , 2019, 17, e3000299.	2.6	27
22	Hawks steer attacks using a guidance system tuned for close pursuit of erratically manoeuvring targets. <i>Nature Communications</i> , 2019, 10, 2462.	5.8	34
23	Planthopper bugs use a fast, cyclic elastic recoil mechanism for effective vibrational communication at small body size. <i>PLoS Biology</i> , 2019, 17, e3000155.	2.6	18
24	Sexual size dimorphism, prey morphology and catch success in relation to flight mechanics in the peregrine falcon: a simulation study. <i>Journal of Avian Biology</i> , 2019, 50, .	0.6	6
25	Motor output and control input in flapping flight: a compact model of the deforming wing kinematics of manoeuvring hoverflies. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20190435.	1.5	4
26	Social conformity and propagation of information in collective U-turns of fish schools. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2018, 285, 20180251.	1.2	43
27	Spontaneous emergence of milling (vortex state) in a Vicsek-like model. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 134004.	1.3	33
28	Physics-based simulations of aerial attacks by peregrine falcons reveal that stooping at high speed maximizes catch success against agile prey. <i>PLoS Computational Biology</i> , 2018, 14, e1006044.	1.5	23
29	Simple scaling law predicts peak efficiency in oscillatory propulsion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 8063-8065.	3.3	11
30	Young macaques (<i>Macaca fascicularis</i>) preferentially bias attention towards closer, older, and better tool users. <i>Animal Cognition</i> , 2018, 21, 551-563.	0.9	15
31	Head movements quadruple the range of speeds encoded by the insect motion vision system in hawkmoths. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017, 284, 20171622.	1.2	10
32	The pregenital abdomen of Enicocephalomorpha and morphological evidence for different modes of communication at the dawn of heteropteran evolution. <i>Arthropod Structure and Development</i> , 2017, 46, 843-868.	0.8	10
33	Simulating Complexity of Animal Social Behaviour. <i>Understanding Complex Systems</i> , 2017, , 633-670.	0.3	1
34	Terminal attack trajectories of peregrine falcons are described by the proportional navigation guidance law of missiles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 13495-13500.	3.3	72
35	Female Dominance in Human Groups. <i>Social Psychological and Personality Science</i> , 2017, 8, 209-218.	2.4	8
36	The Self-organization of Social Complexity in Group-Living Animals. <i>Advances in the Study of Behavior</i> , 2017, 49, 361-405.	1.0	9

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37	The confusion effect when attacking simulated three-dimensional starling flocks. <i>Royal Society Open Science</i> , 2017, 4, 160564.	1.1	32
38	Soaring energetics and glide performance in a moving atmosphere. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2016, 371, 20150398.	1.8	33
39	“Targeting or supporting, what drives patterns of aggressive intervention in fights?” <i>American Journal of Primatology</i> , 2016, 78, 247-255.	0.8	5
40	Early maternal loss affects social integration of chimpanzees throughout their lifetime. <i>Scientific Reports</i> , 2015, 5, 16439.	1.6	30
41	Four-dimensional in vivo X-ray microscopy with projection-guided gating. <i>Scientific Reports</i> , 2015, 5, 8727.	1.6	51
42	Diffusion and Topological Neighbours in Flocks of Starlings: Relating a Model to Empirical Data. <i>PLoS ONE</i> , 2015, 10, e0126913.	1.1	23
43	The increased Efficiency of Fish Swimming in a School, a New Computational Model. <i>Journal of Aero Aqua Bio-mechanisms</i> , 2015, 4, 8-11.	1.0	0
44	Friendship, reciprocation, and interchange in an individual-based model. <i>Behavioral Ecology and Sociobiology</i> , 2015, 69, 383-394.	0.6	20
45	Scale-Free Correlations, Influential Neighbours and Speed Control in Flocks of Birds. <i>Journal of Statistical Physics</i> , 2015, 158, 563-578.	0.5	38
46	Simulating predator attacks on schools: Evolving composite tactics. <i>Ecological Modelling</i> , 2015, 304, 22-33.	1.2	27
47	What underlies waves of agitation in starling flocks. <i>Behavioral Ecology and Sociobiology</i> , 2015, 69, 755-764.	0.6	31
48	The increased efficiency of fish swimming in a school. <i>Fish and Fisheries</i> , 2015, 16, 511-521.	2.7	174
49	The Evolution of Different Forms of Sociality: Behavioral Mechanisms and Eco-Evolutionary Feedback. <i>PLoS ONE</i> , 2015, 10, e0117027.	1.1	12
50	Cooperation, Coalition, Alliances. , 2015, , 1693-1720.		0
51	Empathy versus Parsimony in Understanding Post-Conflict Affiliation in Monkeys: Model and Empirical Data. <i>PLoS ONE</i> , 2014, 9, e91262.	1.1	26
52	The sun compass revisited. <i>Animal Behaviour</i> , 2014, 97, 135-143.	0.8	43
53	In Vivo Time-Resolved Microtomography Reveals the Mechanics of the Blowfly Flight Motor. <i>PLoS Biology</i> , 2014, 12, e1001823.	2.6	134
54	Wing tucks are a response to atmospheric turbulence in the soaring flight of the steppe eagle <i>Aquila nipalensis</i> . <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140645.	1.5	46

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55	â€˜Theory of mindâ€™™ in animals: ways to make progress. <i>Synthese</i> , 2014, 191, 335-354.	0.6	13
56	A meta-analysis of steady undulatory swimming. <i>Fish and Fisheries</i> , 2014, 15, 397-409.	2.7	27
57	Movement initiation in groups of feral horses. <i>Behavioural Processes</i> , 2014, 103, 91-101.	0.5	55
58	A Novel Mechanism for a Survival Advantage of Vigilant Individuals in Groups. <i>American Naturalist</i> , 2013, 182, 682-688.	1.0	12
59	High-Speed X-ray Imaging on the Fly. <i>Synchrotron Radiation News</i> , 2013, 26, 4-10.	0.2	8
60	Fewer invited talks by women in evolutionary biology symposia. <i>Journal of Evolutionary Biology</i> , 2013, 26, 2063-2069.	0.8	120
61	Simulating Complexity of Animal Social Behaviour. <i>Understanding Complex Systems</i> , 2013, , 581-615.	0.3	3
62	Cooperation, Coalition, and Alliances. , 2013, , 1-27.		1
63	Schools of fish and flocks of birds: their shape and internal structure by self-organization. <i>Interface Focus</i> , 2012, 2, 726-737.	1.5	178
64	Fluid dynamics of moving fish in a two-dimensional multiparticle collision dynamics model. <i>Physical Review E</i> , 2012, 85, 021901.	0.8	30
65	Corvid Re-Caching without â€˜Theory of Mindâ€™™: A Model. <i>PLoS ONE</i> , 2012, 7, e32904.	1.1	32
66	Simulations of the social organization of large schools of fish whose perception is obstructed. <i>Applied Animal Behaviour Science</i> , 2012, 138, 142-151.	0.8	36
67	An Individual-Oriented Model on the Emergence of Support in Fights, Its Reciprocation and Exchange. <i>PLoS ONE</i> , 2012, 7, e37271.	1.1	36
68	A minimalist approach to comparative psychology. <i>Trends in Cognitive Sciences</i> , 2011, 15, 185-186.	4.0	10
69	Soaring and manoeuvring flight of a steppe eagle <i>Aquila nipalensis</i> . <i>Journal of Avian Biology</i> , 2011, 42, 377-386.	0.6	47
70	Propagating waves in starling, <i>Sturnus vulgaris</i> , flocks under predation. <i>Animal Behaviour</i> , 2011, 82, 759-765.	0.8	105
71	Corvid caching: Insights from a cognitive model.. <i>Journal of Experimental Psychology</i> , 2011, 37, 330-340.	1.9	13
72	Some Causes of the Variable Shape of Flocks of Birds. <i>PLoS ONE</i> , 2011, 6, e22479.	1.1	106

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73	Boldness by habituation and social interactions: a model. Behavioral Ecology and Sociobiology, 2010, 64, 793-802.	0.6	33
74	Brood temperature, task division and colony survival in honeybees: A model. Ecological Modelling, 2010, 221, 769-776.	1.2	34
75	FREQUENCY-DEPENDENT SOCIAL DOMINANCE IN A COLOR POLYMORPHIC CICHLID FISH. Evolution; International Journal of Organic Evolution, 2010, 64, no-no.	1.1	29
76	Emergence of Oblong School Shape: Models and Empirical Data of Fish. Ethology, 2010, 116, 1099-1112.	0.5	65
77	Fractional rate of change of swim-bladder volume is reliably related to absolute depth during vertical displacements in teleost fish. Journal of the Royal Society Interface, 2010, 7, 1379-1382.	1.5	24
78	Self-organized aerial displays of thousands of starlings: a model. Behavioral Ecology, 2010, 21, 1349-1359.	1.0	182
79	Flow around fishlike shapes studied using multiparticle collision dynamics. Physical Review E, 2009, 79, 046313.	0.8	9
80	Emergent Patterns of Social Affiliation in Primates, a Model. PLoS Computational Biology, 2009, 5, e1000630.	1.5	52
81	Color polymorphism and intrasexual competition in assemblages of cichlid fish. Behavioral Ecology, 2009, 20, 138-144.	1.0	55
82	Self-Organized Shape and Frontal Density of Fish Schools. Ethology, 2008, 114, 245-254.	0.5	130
83	Female Dominance over Males in Primates: Self-Organisation and Sexual Dimorphism. PLoS ONE, 2008, 3, e2678.	1.1	69
84	15 Cooperation, Coalition, and Alliances. , 2007, , 1321-1346.		3
85	Application of digital particle image velocimetry to insect aerodynamics: measurement of the leading-edge vortex and near wake of a Hawkmoth. Experiments in Fluids, 2006, 40, 546-554.	1.1	80
86	Individual variation by self-organisation. Neuroscience and Biobehavioral Reviews, 2005, 29, 125-136.	2.9	46
87	Reconciliation and relationship quality in Assamese macaques (Macaca assamensis). American Journal of Primatology, 2005, 65, 269-282.	0.8	54
88	Problems of allometric scaling analysis: examples from mammalian reproductive biology. Journal of Experimental Biology, 2005, 208, 1731-1747.	0.8	125
89	Density distribution and size sorting in fish schools: an individual-based model. Behavioral Ecology, 2005, 16, 178-187.	1.0	136
90	The construction of dominance order: comparing performance of five methods using an individual-based model. Behaviour, 2005, 142, 1037-1058.	0.4	85

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91	Nonlinear time-periodic models of the longitudinal flight dynamics of desert locusts <i>Schistocerca gregaria</i> . <i>Journal of the Royal Society Interface</i> , 2005, 2, 197-221.	1.5	77
92	Self-Organisation and Evolution of Social Systems. , 2005, , .		14
93	Tuning of Strouhal number for high propulsive efficiency accurately predicts how wingbeat frequency and stroke amplitude relate and scale with size and flight speed in birds. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2004, 271, 2071-2076.	1.2	74
94	Dominance style, differences between the sexes and individuals. <i>Interaction Studies</i> , 2004, 5, 131-146.	0.4	11
95	Self-organizing properties of primate social behavior: A hypothesis for intersexual rank overlap in chimpanzees and bonobos. <i>Evolutionary Anthropology</i> , 2003, 11, 91-94.	1.7	6
96	Flying and swimming animals cruise at a Strouhal number tuned for high power efficiency. <i>Nature</i> , 2003, 425, 707-711.	13.7	813
97	Artificial Fish Schools: Collective Effects of School Size, Body Size, and Body Form. <i>Artificial Life</i> , 2003, 9, 237-253.	1.0	122
98	Female Co-Dominance in a Virtual World: Ecological, Cognitive, Social and Sexual Causes. <i>Behaviour</i> , 2003, 140, 1247-1273.	0.4	32
99	Female Dominance and Social Structure in Alaotran Gentle Lemurs. <i>Behaviour</i> , 2003, 140, 1235-1246.	0.4	72
100	Introduction to Special Issue on Collective Effects of Human Behavior. <i>Artificial Life</i> , 2003, 9, 339-341.	1.0	6
101	Despotic societies, sexual attraction and the emergence of male 'tolerance': an agent-based model. <i>Behaviour</i> , 2002, 139, 729-747.	0.4	28
102	Self-Organization and Natural Selection in the Evolution of Complex Despotic Societies. <i>Biological Bulletin</i> , 2002, 202, 283-288.	0.7	33
103	Understanding Social Behaviour with the Help of Complexity Science (Invited Article). <i>Ethology</i> , 2002, 108, 655-671.	0.5	68
104	Mechanics and aerodynamics of insect flight control. <i>Biological Reviews</i> , 2001, 76, 449-471.	4.7	155
105	Towards the integration of social dominance and spatial structure. <i>Animal Behaviour</i> , 2000, 59, 1035-1048.	0.8	187
106	The formation and maintenance of crayfish hierarchies: behavioral and self-structuring properties. <i>Behavioral Ecology and Sociobiology</i> , 2000, 48, 418-428.	0.6	173
107	Paternity determination, genetic characterization, and social correlates in a captive group of chimpanzees (<i>Pan troglodytes</i>). <i>Primates</i> , 2000, 41, 175-183.	0.7	28
108	Self-Reinforcing Dominance Interactions Between Virtual Males and Females. <i>Hypothesis Generation for Primate Studies. Adaptive Behavior</i> , 2000, 8, 13-26.	1.1	28

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109	Sexual Attraction and Inter-sexual Dominance among Virtual Agents. Lecture Notes in Computer Science, 2000, , 167-180.	1.0	6
110	An individualâ€œorientated model of the emergence of despotic and egalitarian societies. Proceedings of the Royal Society B: Biological Sciences, 1999, 266, 361-369.	1.2	140
111	â€œFriendshipâ€™ for fitness in chimpanzees?. Animal Behaviour, 1999, 58, 1223-1229.	0.8	102
112	Effects of Cohesiveness on Inter-sexual Dominance Relationships and Spatial Structure among Group-Living Virtual Entities. Lecture Notes in Computer Science, 1999, , 524-534.	1.0	14
113	Philopatry, male presence and grooming reciprocation among female primates: a comparative perspective. Behavioral Ecology and Sociobiology, 1998, 42, 207-215.	0.6	38
114	Reciprocation in apes: from complex cognition to self-structuring. , 1996, , 185-195.		26
115	Hiding and perspective taking in long-tailed macaques (<i>Macaca fascicularis</i>).. Journal of Comparative Psychology (Washington, D C: 1983), 1996, 110, 97-102.	0.3	70
116	Support for being groomed in long-tailed macaques, <i>Macaca fascicularis</i> . Animal Behaviour, 1994, 48, 479-481.	0.8	144
117	Sexual exchange relationships in captive chimpanzees?. Behavioral Ecology and Sociobiology, 1992, 30, 269-275.	0.6	88
118	Reciprocity and interchange of grooming and â€œsupportâ€™ in captive chimpanzees. Animal Behaviour, 1991, 41, 923-935.	0.8	152
119	Interchange of â€œaltruisticâ€œ acts as an epiphenomenon. Journal of Theoretical Biology, 1991, 153, 137-139.	0.8	11
120	Side-Directed Behaviour and Recruitment of Support in Captive Chimpanzees. Behaviour, 1991, 118, 89-101.	0.4	13
121	A matrix partial correlation test used in investigations of reciprocity and other social interaction patterns at group level. Journal of Theoretical Biology, 1990, 143, 405-420.	0.8	172
122	Models of, and tests for, reciprocity, unidirectionality and other social interaction patterns at a group level. Animal Behaviour, 1990, 39, 1013-1029.	0.8	270
123	What Chimpanzee Mothers Have More Sociable Infants?. Behaviour, 1989, 111, 305-318.	0.4	14
124	Traffic rules of fish schools: a review of agent-based approaches. , 0, , 50-80.		12
125	A process-oriented approach to the social behaviour of primates. , 0, , 81-107.		1
126	Order and noise in primate societies. , 0, , 108-122.		2

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127	Small Groups from an Evolutionary Perspective. , 0, , 369-396.		8
128	Effect of time-delayed interactions on milling: a minimal model. Europhysics Letters, 0, , .	0.7	1