Tom Lenaerts

List of Publications by Year
in descending order

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112	3,993	186265	133252
papers	citations	28 h-index	59 g-index

121	121	121	3781
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Voluntary safety commitments provide an escape from over-regulation in AI development. Technology in Society, 2022, 68, 101843.	9.4	14
2	Artificial intelligence development races in heterogeneous settings. Scientific Reports, 2022, 12, 1723.	3.3	9
3	Scaling up oligogenic diseases research with OLIDA: the Oligogenic Diseases Database. Database: the Journal of Biological Databases and Curation, 2022, 2022, .	3.0	10
4	Inferring strategies from observations in long iterated Prisonerâ€™s dilemma experiments. Scientific Reports, 2022, 12, 7589.	3.3	5
5	Delegation to artificial agents fosters prosocial behaviors in the collective risk dilemma. Scientific Reports, 2022, 12, 8492.	3.3	7
6	NR5A1 c.991â€‰GÂ›Â C spliceâ€site variant causes familial 46,XY partial gonadal dysgenesis with incomplete penetrance. Clinical Endocrinology, 2021, 94, 656-666.	2.4	9
7	Mediating artificial intelligence developments through negative and positive incentives. PLoS ONE, 2021, 16, e0244592.	2.5	18
8	Repeated Interaction and Its Impact on Cooperation and Surplus Allocationâ€”An Experimental Analysis. Games, 2021, 12, 25.	0.6	2
9	Multistage feedback-driven compartmental dynamics of hematopoiesis. IScience, 2021, 24, 102326.	4.1	5
10	Modeling behavioral experiments on uncertainty and cooperation with population-based reinforcement learning. Simulation Modelling Practice and Theory, 2021, 109, 102299.	3.8	3
11	DOME: recommendations for supervised machine learning validation in biology. Nature Methods, 2021, 18, 1122-1127.	19.0	105
12	Digenic inheritance of human primary microcephaly delineates centrosomal and nonâ€centrosomal pathways. Human Mutation, 2020, 41, 512-524.	2.5	19
13	Dynamic contact networks of patients and MRSA spread in hospitals. Scientific Reports, 2020, 10, 9336.	3.3	20
14	Infiltrative tumour growth pattern correlates with poor outcome in oesophageal cancer. BMJ Open Gastroenterology, 2020, 7, e000431.	2.7	2
15	Do people imitate when making decisions? Evidence from a spatial Prisonerâ€™s Dilemma experiment. Royal Society Open Science, 2020, 7, 200618.	2.4	14
16	Timing Uncertainty in Collective Risk Dilemmas Encourages Group Reciprocation and Polarization. IScience, 2020, 23, 101752.	4.1	28
17	Towards a Phylogenetic Measure to Quantify HIV Incidence. Communications in Computer and Information Science, 2020, , 34-50.	0.5	0
18	How Expert Confidence Can Improve Collective Decision-Making in Contextual Multi-Armed Bandit Problems. Lecture Notes in Computer Science, 2020, , 125-138.	1.3	2

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19	Collective Decision-Making as a Contextual Multi-armed Bandit Problem. Lecture Notes in Computer Science, 2020, , 113-124.	1.3	0
20	Using game theory and decision decomposition to effectively discern and characterise bi-locus diseases. Artificial Intelligence in Medicine, 2019, 99, 101690.	6.5	10
21	Modelling and Influencing the AI Bidding War. , 2019, , .		9
22	Predicting disease-causing variant combinations. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11878-11887.	7.1	68
23	ORVAL: a novel platform for the prediction and exploration of disease-causing oligogenic variant combinations. Nucleic Acids Research, 2019, 47, W93-W98.	14.5	46
24	Towards Large-Scale Optimization of Iterated Prisoner Dilemma Strategies. Lecture Notes in Computer Science, 2019, , 167-183.	1.3	0
25	Chemical shift assignments of the partially deuterated Fyn SH2â€“SH3 domain. Biomolecular NMR Assignments, 2018, 12, 117-122.	0.8	0
26	Flexible asynchronous simulation of iterated prisonerâ€™s dilemma based on actor model. Simulation Modelling Practice and Theory, 2018, 83, 75-92.	3.8	6
27	Large-scale in-silico statistical mutagenesis analysis sheds light on the deleteriousness landscape of the human proteome. Scientific Reports, 2018, 8, 16980.	3.3	7
28	Evolutionary dynamics of paroxysmal nocturnal hemoglobinuria. PLoS Computational Biology, 2018, 14, e1006133.	3.2	14
29	EMERGENCE OF POPULATION STRUCTURE IN SOCIO-COGNITIVELY INSPIRED ANT COLONY OPTIMIZATION. Computer Science, 2018, 19, 83.	0.6	1
30	Evolution of commitment and level of participation in public goods games. Autonomous Agents and Multi-Agent Systems, 2017, 31, 561-583.	2.1	50
31	Socio-cognitively inspired ant colony optimization. Journal of Computational Science, 2017, 21, 397-406.	2.9	17
32	Structural Characterization of Monomeric/Dimeric State of p59fyn SH2 Domain. Methods in Molecular Biology, 2017, 1555, 257-267.	0.9	1
33	When agreement-accepting free-riders are a necessary evil for the evolution of cooperation. Scientific Reports, 2017, 7, 2478.	3.3	19
34	SVM-dependent pairwise HMM: an application to protein pairwise alignments. Bioinformatics, 2017, 33, 3902-3908.	4.1	8
35	DEOGEN2: prediction and interactive visualization of single amino acid variant deleteriousness in human proteins. Nucleic Acids Research, 2017, 45, W201-W206.	14.5	114
36	Understanding mutational effects in digenic diseases. Nucleic Acids Research, 2017, 45, e140-e140.	14.5	45

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37	Novel promoters and coding first exons in DLG2 linked to developmental disorders and intellectual disability. Genome Medicine, 2017, 9, 67.	8.2	29
38	Adaptation of Population Structure in Socio-cognitive Particle Swarm Optimization. Procedia Computer Science, 2016, 101, 177-186.	2.0	1
39	Measuring Diversity of Socio-Cognitively Inspired ACO Search. Lecture Notes in Computer Science, 2016, , 393-408.	1.3	3
40	A synergy of costly punishment and commitment in cooperation dilemmas. Adaptive Behavior, 2016, 24, 237-248.	1.9	29
41	About the discrete-continuous nature of a hematopoiesis model for Chronic Myeloid Leukemia. Mathematical Biosciences, 2016, 282, 174-180.	1.9	1
42	Enhancing Particle Swarm Optimization with Socio-cognitive Inspirations. Procedia Computer Science, 2016, 80, 804-813.	2.0	9
43	Dynamically Coupled Residues within the SH2 Domain of FYN Are Key to Unlocking Its Activity. Structure, 2016, 24, 1947-1959.	3.3	8
44	Generosity motivated by acceptanceâ€‰-â€‰evolutionary analysis of an anticipation game. Scientific Reports, 2016, 5, 18076.	3.3	29
45	DIDA: A curated and annotated digenic diseases database. Nucleic Acids Research, 2016, 44, D900-D907.	14.5	84
46	Multilevel biological characterization of exomic variants at the protein level significantly improves the identification of their deleterious effects. Bioinformatics, 2016, 32, 1797-1804.	4.1	32
47	Equivalence of cooperation indexes. Physics of Life Reviews, 2016, 16, 196-197.	2.8	0
48	From Binding-Induced Dynamic Effects in SH3 Structures to Evolutionary Conserved Sectors. PLoS Computational Biology, 2016, 12, e1004938.	3.2	5
49	Apology and forgiveness evolve to resolve failures in cooperative agreements. Scientific Reports, 2015, 5, 10639.	3.3	43
50	Synergy between intention recognition and commitments in cooperation dilemmas. Scientific Reports, 2015, 5, 9312.	3.3	33
51	Emergence of cooperation via intention recognition, commitment and apologyÂâ€“ AÂresearch summary. AI Communications, 2015, 28, 709-715.	1.2	10
52	Structural insights into the intertwined dimer of fyn SH2. Protein Science, 2015, 24, 1964-1978.	7.6	7
53	Cross-biome comparison of microbial association networks. Frontiers in Microbiology, 2015, 6, 1200.	3.5	154
54	Avoiding or restricting defectors in public goods games?. Journal of the Royal Society Interface, 2015, 12, 20141203.	3.4	51

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55	Multi-pheromone ant Colony Optimization for Socio-cognitive Simulation Purposes. Procedia Computer Science, 2015, 51, 954-963.	2.0	10
56	The DynaMine webserver: predicting protein dynamics from sequence. Nucleic Acids Research, 2014, 42, W264-W270.	14.5	125
57	Predicting virus mutations through statistical relational learning. BMC Bioinformatics, 2014, 15, 309.	2.6	6
58	Politics Matters: Dynamics of Inter-organizational Networks among Immigrant Associations. Studies in Computational Intelligence, 2014, , 47-55.	0.9	2
59	1H, 13C, and 15N backbone and side-chain chemical shift assignments of the free and bound forms of the human PTPN11 second SH2 domain. Biomolecular NMR Assignments, 2013, 8, 297-301.	0.8	1
60	Evolution of Fairness and Conditional Cooperation in Public Goods Dilemmas. Springer Proceedings in Complexity, 2013, , 827-830.	0.3	1
61	From protein sequence to dynamics and disorder with DynaMine. Nature Communications, 2013, 4, 2741.	12.8	139
62	On the dynamics of neutral mutations in a mathematical model for a homogeneous stem cell population. Journal of the Royal Society Interface, 2013, 10, 20120810.	3.4	31
63	Good Agreements Make Good Friends. Scientific Reports, 2013, 3, 2695.	3.3	53
64	Accurate Prediction of the Dynamical Changes within the Second PDZ Domain of PTP1e. PLoS Computational Biology, 2012, 8, e1002794.	3.2	25
65	Emergence of Fairness in Repeated Group Interactions. Physical Review Letters, 2012, 108, 158104.	7.8	83
66	The role of diversity in the evolution of cooperation. Journal of Theoretical Biology, 2012, 299, 88-96.	1.7	158
67	Purification, crystallization and preliminary X-ray diffraction analysis of the Fyn SH2 domain and its complex with a phosphotyrosine peptide. Acta Crystallographica Section F: Structural Biology Communications, 2012, 68, 359-364.	0.7	2
68	1H, 13C and 15N backbone and side-chain chemical shift assignment of the Fyn SH2 domain and its complex with a phosphotyrosine peptide. Biomolecular NMR Assignments, 2011, 5, 181-184.	0.8	1
69	Selection pressure transforms the nature of social dilemmas in adaptive networks. New Journal of Physics, 2011, 13, 013007.	2.9	30
70	Explaining the in vitro and in vivo differences in leukemia therapy. Cell Cycle, 2011, 10, 1540-1544.	2.6	7
71	Dynamics of Mutant Cells in Hierarchical Organized Tissues. PLoS Computational Biology, 2011, 7, e1002290.	3.2	70
72	Scale Free Networks. , 2011, , 1492-1493.		0

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73	Emergence of Cooperation in Adaptive Social Networks with Behavioral Diversity. Lecture Notes in Computer Science, 2011, , 434-441.	1.3	1
74	Tyrosine kinase inhibitor therapy can cure chronic myeloid leukemia without hitting leukemic stem cells. Haematologica, 2010, 95, 900-907.	3.5	55
75	Coevolution of Cooperation, Response to Adverse Social Ties and Network Structure. Games, 2010, 1, 317-337.	0.6	15
76	Evolutionary Dynamics of Chronic Myeloid Leukemia. Genes and Cancer, 2010, 1, 309-315.	1.9	17
77	Reacting Differently to Adverse Ties Promotes Cooperation in Social Networks. Physical Review Letters, 2009, 102, 058105.	7.8	146
78	Stochastic Simulation of the Chemoton. Artificial Life, 2009, 15, 213-226.	1.3	16
79	A Synthon Approach to Artificial Chemistry. Artificial Life, 2009, 15, 89-103.	1.3	11
80	Protein-Peptide Interactions Adopt the Same Structural Motifs as Monomeric Protein Folds. Structure, 2009, 17, 1128-1136.	3.3	79
81	Information theoretical quantification of cooperativity in signalling complexes. BMC Systems Biology, 2009, 3, 9.	3.0	17
82	The coevolution of loyalty and cooperation. , 2009, , .		0
83	Protein Domains as Information Processing Units. Current Protein and Peptide Science, 2009, 10, 133-145.	1.4	4
84	Solving Hierarchically Decomposable Problems with the Evolutionary Transition Algorithm. Studies in Computational Intelligence, 2009, , 111-143.	0.9	0
85	The Evolutionary Transition Algorithm: Evolving Complex Solutions Out of Simpler Ones. Studies in Computational Intelligence, 2009, , 103-131.	0.9	0
86	Evolution of Cooperation in Adaptive Social Networks. World Scientific Lecture Notes in Complex Systems, 2009, , 373-392.	0.1	0
87	Quantifying information transfer by protein domains: Analysis of the Fyn SH2 domain structure. BMC Structural Biology, 2008, 8, 43.	2.3	33
88	The evolution of prompt reaction to adverse ties. BMC Evolutionary Biology, 2008, 8, 287.	3.2	44
89	Evolution of Complexity. Artificial Life, 2008, 14, 241-243.	1.3	13
90	Reconstruction of Protein Backbones from the BriX Collection of Canonical Protein Fragments. PLoS Computational Biology, 2008, 4, e1000083.	3.2	42

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91	Evolution of Cooperation in a Population of Selfish Adaptive Agents. Lecture Notes in Computer Science, 2007, , 535-544.	1.3	2
92	Networks Regulating Networks: The Effects of Constraints on Topological Evolution. Lecture Notes in Computer Science, 2007, , 956-965.	1.3	0
93	Cooperation Prevails When Individuals Adjust Their Social Ties. PLoS Computational Biology, 2006, 2, e140.	3.2	440
94	Evolutionary dynamics of social dilemmas in structured heterogeneous populations. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 3490-3494.	7.1	834
95	Growing biological networks: Beyond the gene-duplication model. Journal of Theoretical Biology, 2006, 241, 488-505.	1.7	15
96	The evolutionary language game: An orthogonal approach. Journal of Theoretical Biology, 2005, 235, 566-582.	1.7	50
97	Evolution of DNA Uptake Signal Sequences. Artificial Life, 2005, 11, 317-338.	1.3	6
98	Dynamical Hierarchies (Guest Editors' Introduction). Artificial Life, 2005, 11, 403-405.	1.3	10
99	Is Scale-Free A Realistic Topology For Evolving Biochemical Networks?. AIP Conference Proceedings, 2005, , .	0.4	0
100	Transition models as an incremental approach for problem solving in evolutionary algorithms. , 2005, , .		8
101	Growing Biochemical Networks: Identifying the Intrinsic Properties. Lecture Notes in Computer Science, 2005, , 864-873.	1.3	0
102	Evolutionary Transitions as a Metaphor for Evolutionary Optimisation. Lecture Notes in Computer Science, 2005, , 342-352.	1.3	8
103	An Evolutionary Game Theoretic Perspective on Learning in Multi-Agent Systems. SynthÃˆse, 2004, 139, 297-330.	1.1	6
104	A selection-mutation model for q-learning in multi-agent systems. , 2003, , .		52
105	Lineage and Induction in the Development of Evolved Genotypes for Non-uniform 2D CAs. Lecture Notes in Computer Science, 2002, , 321-332.	1.3	6
106	Learning to Reach the Pareto Optimal Nash Equilibrium as a Team. Lecture Notes in Computer Science, 2002, , 407-418.	1.3	9
107	Raising the Dead: Extending Evolutionary Algorithms with a Case-Based Memory. Lecture Notes in Computer Science, 2001, , 280-290.	1.3	20
108	Transitions in a Simple Evolutionary Model. Lecture Notes in Computer Science, 2001, , 436-439.	1.3	0

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109	Building a genetic programming framework: The added-value of design patterns. Lecture Notes in Computer Science, 1998, , 196-208.	1.3	6
110	The robustness of small developed SBlock circuits using different clocking schemes. , 0, , .		2
111	To Regulate or Not: A Social Dynamics Analysis of an Idealised AI Race. Journal of Artificial Intelligence Research, 0, 69, 881-921.	7.0	18
112	Gene interaction and modularisation in a model for gene-regulated development. , 0, , .		2