Jean-Baptiste Mouret

List of Publications by Year in Descending Order

81	2,685	27	50
papers	citations	h-index	g-index
90	3,408	6.2	5.82
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
81	Multi-objective Trajectory Optimization to Improve Ergonomics in Human Motion. *IEEE Robotics and Automation Letters*, **2021**, 1-1	4.2	2
80	Signal-Based Self-Organization of a Chain of UAVs for Subterranean Exploration. *Frontiers in Robotics and AI*, **2021**, 8, 614206	2.8	2
79	Human Posture Prediction During Physical Human-Robot Interaction. *IEEE Robotics and Automation Letters*, **2021**, 6, 6046-6053	4.2	5
78	Quality-Diversity Optimization: A Novel Branch of Stochastic Optimization. *Springer Optimization and Its Applications*, **2021**, 109-135	0.4	4
77	The Surprising Creativity of Digital Evolution: A Collection of Anecdotes from the Evolutionary Computation and Artificial Life Research Communities. *Artificial Life*, **2020**, 26, 274-306	1.4	31
76	Learning Robust Task Priorities and Gains for Control of Redundant Robots. *IEEE Robotics and Automation Letters*, **2020**, 5, 2626-2633	4.2	6
75	Fast Online Adaptation in Robotics through Meta-Learning Embeddings of Simulated Priors **2020**,		4
74	Learning behaviour-performance maps with meta-evolution **2020**,		4
73	Quality diversity for multi-task optimization **2020**,		10
72	Discovering representations for black-box optimization **2020**,		7
71	. *IEEE Transactions on Robotics*, **2020**, 36, 328-347	6.5	35
70	Evolving the Behavior of Machines: From Micro to Macroevolution. *IScience*, **2020**, 23, 101731	6.1	2
69	Are quality diversity algorithms better at generating stepping stones than objective-based search? **2019**,		9
68	MAP-Elites for noisy domains by adaptive sampling **2019**,		6
67	Adaptive Prior Selection for Repertoire-Based Online Adaptation in Robotics. *Frontiers in Robotics and AI*, **2019**, 6, 151	2.8	9
66	Humanoid Whole-Body Movement Optimization from Retargeted Human Motions **2019**,		2
65	Evolving embodied intelligence from materials to machines. *Nature Machine Intelligence*, **2019**, 1, 12-19	22.5	47

64	Adaptive and Resilient Soft Tensegrity Robots. *Soft Robotics*, **2018**, 5, 318-329	9.2	49
63	Data-efficient neuroevolution with kernel-based surrogate models **2018**,		6
62	Data-Efficient Design Exploration through Surrogate-Assisted Illumination. *Evolutionary Computation*, **2018**, 26, 381-410	4.3	19
61	Limbo: A Flexible High-performance Library for Gaussian Processes modeling and Data-Efficient Optimization. *Journal of Open Source Software*, **2018**, 3, 545	5.2	9
60	Reset-free Trial-and-Error Learning for Robot Damage Recovery. *Robotics and Autonomous Systems*, **2018**, 100, 236-250	3.5	32
59	. *IEEE Transactions on Evolutionary Computation*, **2018**, 22, 623-630	15.6	32
58	Discovering the elite hypervolume by leveraging interspecies correlation **2018**,		14
57	**2018**,		11
56	Bayesian Optimization with Automatic Prior Selection for Data-Efficient Direct Policy Search **2018**,		13
55	Discovery of a big void in Khufu's Pyramid by observation of cosmic-ray muons. *Nature*, **2017**, 552, 386-390	30.4	168
54	Data-efficient exploration, optimization, and modeling of diverse designs through surrogate-assisted illumination **2017**,		21
53	Aerodynamic Design Exploration through Surrogate-Assisted Illumination **2017**,		11
52	**2017**,		29
51	Comparing multimodal optimization and illumination **2017**,		7
50	Trial-and-error learning of repulsors for humanoid QP-based whole-body control **2017**,		4
49	A comparison of illumination algorithms in unbounded spaces **2017**,		9
48	20 years of reality gap **2017**,		29
47	How do Different Encodings Influence the Performance of the MAP-Elites Algorithm? **2016**,		21

46	Does Aligning Phenotypic and Genotypic Modularity Improve the Evolution of Neural Networks? **2016**,		6
45	Animal-to-robot social attachment: initial requisites in a gallinaceous bird. *Bioinspiration and Biomimetics*, **2016**, 11, 016007	2.6	14
44	Evolving a Behavioral Repertoire for a Walking Robot. *Evolutionary Computation*, **2016**, 24, 59-88	4.3	41
43	The Evolutionary Origins of Hierarchy. *PLoS Computational Biology*, **2016**, 12, e1004829	5	69
42	Neural modularity helps organisms evolve to learn new skills without forgetting old skills. *PLoS Computational Biology*, **2015**, 11, e1004128	5	75
41	Evolvability signatures of generative encodings: Beyond standard performance benchmarks. *Information Sciences*, **2015**, 313, 43-61	7.7	10
40	Evolutionary Robotics: What, Why, and Where to. *Frontiers in Robotics and AI*, **2015**, 2,	2.8	92
39	Robots that can adapt like animals. *Nature*, **2015**, 521, 503-7	50.4	417
38	A New Method to Evaluate Simulation Models: The Calibration Profile (CP) Algorithm. *Jasss*, **2015**, 18,	4.8	6
37	Beyond black-box optimization: a review of selective pressures for evolutionary robotics. *Evolutionary Intelligence*, **2014**, 7, 71-93	1.7	60
36	Evolving neural networks that are both modular and regular **2014**,		26
35	Artificial Evolution of Plastic Neural Networks: A Few Key Concepts. *Studies in Computational Intelligence*, **2014**, 251-261	0.8	8
34	Behavioral repertoire learning in robotics **2013**,		30
33	Behavioral diversity with multiple behavioral distances **2013**,		15
32	. *IEEE Transactions on Evolutionary Computation*, **2013**, 17, 122-145	15.6	138
31	The evolutionary origins of modularity. *Proceedings of the Royal Society B: Biological Sciences*, **2013**, 280, 20122863	4.4	337
30	Optimization of humanoid walking controller: Crossing the reality gap **2013**,		2
29	Summary of "the evolutionary origins of modularity" **2013**,		6

28	Fast damage recovery in robotics with the T-resilience algorithm. *International Journal of Robotics Research*, **2013**, 32, 1700-1723	5.7	40
27	On the relationships between generative encodings, regularity, and learning abilities when evolving plastic artificial neural networks. *PLoS ONE*, **2013**, 8, e79138	3.7	18
26	Dynamic behavioral diversity **2012**,		1
25	Encouraging behavioral diversity in evolutionary robotics: an empirical study. *Evolutionary Computation*, **2012**, 20, 91-133	4.3	152
24	On the relationships between synaptic plasticity and generative systems **2011**,		11
23	How to promote generalisation in evolutionary robotics **2011**,		8
22	Using a map-based encoding to evolve plastic neural networks **2011**,		3
21	New Horizons in Evolutionary Robotics. *Studies in Computational Intelligence*, **2011**,	0.8	11
20	Evolutionary Robotics: Exploring New Horizons. *Studies in Computational Intelligence*, **2011**, 3-25	0.8	21
19	Novelty-Based Multiobjectivization. *Studies in Computational Intelligence*, **2011**, 139-154	0.8	57
18	Influence of Promoter Length on Network Convergence in GRN-Based Evolutionary Algorithms. *Lecture Notes in Computer Science*, **2011**, 302-309	0.9	
17	Stochastic optimization of a neural network-based controller for aggressive maneuvers on loose surfaces **2010**,		1
16	**2010**,		29
15	Behavioral diversity measures for Evolutionary Robotics **2010**,		36
14	Crossing the reality gap in evolutionary robotics by promoting transferable controllers **2010**,		36
13	Importing the computational neuroscience toolbox into neuro-evolution-application to basal ganglia **2010**,		10
12	Stochastic Multi-objective Optimization for Aggressive Maneuver Trajectory Planning on Loose Surface. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 575-580		
11	**2009**,		12