Alessandro Saffiotti

List of Publications by Year
in descending order

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124 papers	3,714 citations	201575 27 h-index	182361 51 g-index
129 all docs	129 docs citations	129 times ranked	2451 citing authors

#	Article	IF	Citations
1	The CLAIRE COVID-19 initiative: approach, experiences and recommendations. Ethics and Information Technology, 2021, 23, 127-133.	2.3	0
2	Human-Robot Artistic Co-Creation: a Study in Improvised Robot Dance. , 2020, , .		6
3	Robots that maintain equilibrium: Proactivity by reasoning about user intentions and preferences. Pattern Recognition Letters, 2019, 118, 85-93.	2.6	3
4	An ambient intelligence approach for learning in smart robotic environments. Computational Intelligence, 2019, 35, 1060-1087.	2.1	6
5	CARESSES:The Flower that Taught Robots about Culture. , 2019, , .		1
6	Knowledge Representation for Culturally Competent Personal Robots: Requirements, Design Principles, Implementation, and Assessment. International Journal of Social Robotics, 2019, 11, 515-538.	3.1	49
7	The CARESSES EU-Japan Project: Making Assistive Robots Culturally Competent. Lecture Notes in Electrical Engineering, 2019, , 151-169.	0.3	7
8	Learning from Implicit Information in Natural Language Instructions for Robotic Manipulations. , 2019, , .		0
9	The Internet of Robotic Things. International Journal of Advanced Robotic Systems, 2018, 15, 172988141875942.	1.3	152
10	Collaborative Development Within a Social Robotic, Multi-Disciplinary Effort: the CARESSES Case Study. , 2018, , .		4
11	Culturally aware Planning and Execution of Robot Actions. , 2018, , .		21
12	Towards Norm Realization in Institutions Mediating Human-Robot Societies. , 2018, , .		2
13	Geometric backtracking for combined task and motion planning in robotic systems. Artificial Intelligence, 2017, 247, 229-265.	3.9	45
14	Towards a science of integrated AI and Robotics. Artificial Intelligence, 2017, 247, 1-9.	3.9	99
15	A framework for culture-aware robots based on fuzzy logic. , 2017, , .		7
16	Proactivity through equilibrium maintenance with fuzzy desirability. , 2017, , .		0
17	Paving the way for culturally competent robots: A position paper. , 2017, , .		40
18	Point-to-point safe navigation of a mobile robot using stigmergy and RFID technology. , 2016, , .		4

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19	Children Playing with Robots Using Stigmergy on a Smart Floor. , 2016, , .		2
20	A Cloud Robotics Solution to Improve Social Assistive Robots for Active and Healthy Aging. International Journal of Social Robotics, 2016, 8, 393-408.	3.1	59
21	Multi-modal sensing for human activity recognition. , 2015, , .		3
22	Reports of the AAAI 2014 Conference Workshops. AI Magazine, 2015, 36, 87-98.	1.4	1
23	Design of cloud robotic services for senior citizens to improve independent living in multiple environments. Intelligenza Artificiale, 2015, 9, 63-72.	1.0	9
24	Stigmergy at work: Planning and navigation for a service robot on an RFID floor. , 2015, , .		23
25	Inexpensive, reliable and localization-free navigation using an RFID floor. , 2015, , .		11
26	Robotic Ubiquitous Cognitive Ecology for Smart Homes. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 80, 57-81.	2.0	27
27	A cognitive robotic ecology approach to self-configuring and evolving AAL systems. Engineering Applications of Artificial Intelligence, 2015, 45, 269-280.	4.3	24
28	Efficiently combining task and motion planning using geometric constraints. International Journal of Robotics Research, 2014, 33, 1726-1747.	5.8	72
29	The RACE Project. KI - Kunstliche Intelligenz, 2014, 28, 297-304.	2.2	18
30	An experience-based approach for cognitive service robot system. , 2014, , .		0
31	Development of a Socially Believable Multi-Robot Solution from Town to Home. Cognitive Computation, 2014, 6, 954-967.	3.6	85
32	Learning context-aware mobile robot navigation in home environments. , 2014, , .		19
33	Stigmergic algorithms for multiple minimalistic robots on an RFID floor. Swarm Intelligence, 2014, 8, 199-225.	1.3	19
34	Using Fuzzy Logic to Enhance Classification of Human Motion Primitives. Communications in Computer and Information Science, 2014, , 596-605.	0.4	10
35	Inferring robot goals from violations of semantic knowledge. Robotics and Autonomous Systems, 2013, 61, 1131-1143.	3.0	26
36	Scaling up ubiquitous robotic systems from home to town (and beyond). , 2013, , .		0

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37	When robots are late: Configuration planning for multiple robots with dynamic goals. , 2013, , .		14
38	Towards an upper ontology and methodology for robotics and automation. , 2012, , .		0
39	Constraint propagation on interval bounds for dealing with geometric backtracking. , 2012, , .		49
40	Semantic Norms for Mobile Robots: When the end does not justify the means. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 84-89.	0.4	1
41	Hybrid Reasoning in Perception: A Case Study. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 90-95.	0.4	2
42	Human-aware planning for robots embedded in ambient ecologies. Pervasive and Mobile Computing, 2012, 8, 542-561.	2.1	10
43	A middleware to integrate robots, simple devices and everyday objects into an ambient ecology. Pervasive and Mobile Computing, 2012, 8, 522-541.	2.1	8
44	Special issue on â€œAmbient Ecologiesâ€• Pervasive and Mobile Computing, 2012, 8, 483-484.	2.1	1
45	A constraint-based approach for proactive, context-aware human support. Journal of Ambient Intelligence and Smart Environments, 2012, 4, 347-367.	0.8	34
46	Multi-camera head pose estimation. Machine Vision and Applications, 2012, 23, 479-490.	1.7	27
47	The PEIS Table: An Autonomous Robotic Table for Domestic Environments. Automatika, 2011, 52, 244-255.	1.2	3
48	Gas source localization in indoor environments using multiple inexpensive robots and stigmergy. , 2011, , .		6
49	Gas source localization in indoor environments using multiple inexpensive robots and stigmergy. , 2011, , .		1
50	Fuzzy uncertainty modeling for grid based localization of mobile robots. International Journal of Approximate Reasoning, 2010, 51, 912-932.	1.9	18
51	An evaluation of local autonomy applied to teleoperated vehicles in underground mines. , 2010, , .		10
52	Human-aware task planning. ACM Transactions on Intelligent Systems and Technology, 2010, 1, 1-26.	2.9	31
53	Navigating by stigmergy: A realization on an RFID floor for minimalistic robots. , 2009, , .		36
54	Multirobot Object Localization: A Fuzzy Fusion Approach. IEEE Transactions on Systems, Man, and Cybernetics, 2009, 39, 1259-1276.	5.5	31

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55	Using semantic knowledge in robotics. Robotics and Autonomous Systems, 2008, 56, 875-877.	3.0	20
56	Autonomous functional configuration of a network robot system. Robotics and Autonomous Systems, 2008, 56, 819-830.	3.0	44
57	Network robot systems. Robotics and Autonomous Systems, 2008, 56, 793-797.	3.0	112
58	Monitoring the execution of robot plans using semantic knowledge. Robotics and Autonomous Systems, 2008, 56, 942-954.	3.0	27
59	Robot task planning using semantic maps. Robotics and Autonomous Systems, 2008, 56, 955-966.	3.0	222
60	Laser based intersection detection for reactive navigation in an underground mine. , 2008, , .		12
61	Laserâ€based corridor detection for reactive navigation. Industrial Robot, 2008, 35, 69-79.	1.2	29
62	Flexible infrastructure free navigation for vehicles in underground mines. , 2008, , .		1
63	Cooperative anchoring in heterogeneous multi-robot systems. , 2008, , .		25
64	The PEIS-Ecology project: Vision and results. , 2008, , .		76
65	Digital representation of everyday objects in a robot ecology via proxies. , 2008, , .		3
66	Affordances in an Ecology of Physically Embedded Intelligent Systems. , 2008, , 106-121.		6
67	Semantic Knowledge-Based Execution Monitoring for Mobile Robots. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	9
68	Dynamic self-configuration of an ecology of robots. , 2007, , .		9
69	Handling uncertainty in semantic-knowledge based execution monitoring. , 2007, , .		15
70	Monitoring the State of a Ubiquitous Robotic System: A Fuzzy Logic Approach. IEEE International Conference on Fuzzy Systems, 2007, , .	0.0	2
71	Seamless integration of robots and tiny embedded devices in a PEIS-Ecology. , 2007, , .		16
72	Model-Free Execution Monitoring in Behavior-Based Robotics. IEEE Transactions on Systems, Man, and Cybernetics, 2007, 37, 890-901.	5.5	25

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73	Life-Long Optimization of the Symbolic Model of Indoor Environments for a Mobile Robot. IEEE Transactions on Systems, Man, and Cybernetics, 2007, 37, 1290-1304.	5.5	10
74	Plan-Based Configuration of an Ecology of Robots. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	17
75	Interacting with a Robot Ecology using Task Templates. , 2007, , .		3
76	Virtual 360Â° Panorama for Remote Inspection. , 2007, , .		3
77	Symbiotic Robotic Systems: Humans, Robots, and Smart Environments. IEEE Intelligent Systems, 2006, 21, 82-84.	4.0	40
78	An Autonomous Spherical Robot for Security Tasks. , 2006, , .		42
79	A Navigation System for Automated Loaders in Underground Mines. Springer Tracts in Advanced Robotics, 2006, , 129-140.	0.3	16
80	A Navigation System for Automated Loaders in Underground Mines. , 2006, , 129-140.		6
81	PEIS ecologies. , 2005, , .		60
82	Multi-hierarchical semantic maps for mobile robotics. , 2005, , .		189
83	Robust Multi-robot Object Localization Using Fuzzy Logic. Lecture Notes in Computer Science, 2005, , 247-261.	1.0	9
84	Overview of RoboCup 2003 Competition and Conferences. Lecture Notes in Computer Science, 2004, , 1-14.	1.0	1
85	An introduction to the anchoring problem. Robotics and Autonomous Systems, 2003, 43, 85-96.	3.0	212
86	Title is missing!. Robotics and Autonomous Systems, 2003, 43, 83.	3.0	4
87	On the Representation of Fuzzy Spatial Relations in Robot Maps. , 2003, , 47-57.		8
88	Augmenting topology-based maps with geometric information. Robotics and Autonomous Systems, 2002, 40, 91-97.	3.0	43
89	Perceptual Anchoring: A Key Concept for Plan Execution in Embedded Systems. Lecture Notes in Computer Science, 2002, , 89-105.	1.0	1
90	Fusion: General concepts and characteristics. International Journal of Intelligent Systems, 2001, 16, 1107-1134.	3.3	106

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91	Fuzzy Logic in Autonomous Navigation. Studies in Fuzziness and Soft Computing, 2001, , 3-24.	0.6	16
92	Global team coordination by local computation. , 2001, , .		1
93	Belief functions and default reasoning. Artificial Intelligence, 2000, 122, 1-69.	3.9	65
94	A modal logic for fusing partial belief of multiple reasoners. Journal of Logic and Computation, 1999, 9, 81-103.	0.5	11
95	Using fuzzy sets to represent uncertain spatial knowledge in autonomous robots. Spatial Cognition and Computation, 1999, 1, 205-226.	0.6	6
96	Using Fuzzy Logic for Mobile Robot Control. The Handbooks of Fuzzy Sets Series, 1999, , 185-205.	0.5	51
97	Environmental exploration: an autonomous sensory systems approach. IEEE Instrumentation and Measurement Magazine, 1999, 2, 28-32.	1.2	0
98	Handling Uncertainty in Control of Autonomous Robots. Lecture Notes in Computer Science, 1999, , 381-407.	1.0	10
99	Anchoring Symbols to Vision Data by Fuzzy Logic. Lecture Notes in Computer Science, 1999, , 104-115.	1.0	9
100	Handling uncertainty in control of autonomous robots. Lecture Notes in Computer Science, 1998, , 198-224.	1.0	5
101	The Saphira architecture: a design for autonomy. Journal of Experimental and Theoretical Artificial Intelligence, 1997, 9, 215-235.	1.8	142
102	Using fuzzy logic for autonomous robotics: an on-line workshop. Knowledge Engineering Review, 1997, 12, 91-94.	2.1	1
103	The uses of fuzzy logic in autonomous robot navigation. Soft Computing, 1997, 1, 180-197.	2.1	295
104	A case study in the qualitative verification and debugging of numerical uncertainty. International Journal of Approximate Reasoning, 1996, 14, 187-216.	1.9	2
105	Information processing and the management of uncertainty. Knowledge Engineering Review, 1995, 10, 83-88.	2.1	1
106	The qualitative verification of quantitative uncertainty. Lecture Notes in Computer Science, 1995, , 180-189.	1.0	0
107	A multivalued logic approach to integrating planning and control. Artificial Intelligence, 1995, 76, 481-526.	3.9	222
108	Inference-driven construction of valuation systems from first-order clauses. IEEE Transactions on Systems, Man, and Cybernetics, 1994, 24, 1611-1624.	0.9	4

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109	Comparing Uncertainty Management Techniques. Computer-Aided Civil and Infrastructure Engineering, 1994, 9, 367-383.	6.3	11
110	Integrating uncertainty handling formalisms in distributed artificial intelligence. , 1993, , 304-309.		1
111	A Fuzzy Controller for Flakey, An Autonomous Mobile Robot. Informatik Aktuell, 1993, , 3-12.	0.4	14
112	A General Tool for Propagating Uncertainty in Valuation Networks. , 1991, , 323-331.		24
113	A hybrid belief system for doubtful agents. , 1990, , 393-402.		1
114	The treatment of uncertainty in AI: Is there a better vantage point?. Knowledge Engineering Review, 1988, 3, 87-91.	2.1	1
115	An AI view of the treatment of uncertainty. Knowledge Engineering Review, 1987, 2, 75-97.	2.1	50
116	Extracting topology-based maps from gridmaps. , 0, , .		53
117	Learning to locate an odour source with a mobile robot. , 0, , .		29
118	A hierarchical behavior-based approach to manipulation tasks. , 0, , .		12
119	Model-Free Execution Monitoring by Learning from Simulation. , 0, , .		3
120	PEIS Ecology: integrating robots into smart environments. , 0, , .		40
121	An ecological approach to odour recognition in intelligent environments. , 0, , .		7
122	Autonomous robot navigation. , 0, , .		6
123	Proactive Assistance in Ecologies of Physically Embedded Intelligent Systems. Advances in Computational Intelligence and Robotics Book Series, 0, , 534-557.	0.4	3
124	Relational Symbol Grounding through Affordance Learning: An Overview of the ReGround Project. , 0, , .		1