

Filippo Arrichiello

List of Publications by Year in descending order

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65
papers

1,588
citations

430874

18
h-index

434195

31
g-index

66
all docs

66
docs citations

66
times ranked

1322
citing authors

#	ARTICLE	IF	CITATIONS
1	Decentralized time-varying formation control for multi-robot systems. International Journal of Robotics Research, 2014, 33, 1029-1043.	8.5	185
2	The null-space-based behavioral control for autonomous robotic systems. Intelligent Service Robotics, 2008, 1, 27-39.	2.6	151
3	Experiments of Formation Control With Multirobot Systems Using the Null-Space-Based Behavioral Control. IEEE Transactions on Control Systems Technology, 2009, 17, 1173-1182.	5.2	118
4	Adaptive Trajectory Tracking for Quadrotor MAVs in Presence of Parameter Uncertainties and External Disturbances. IEEE Transactions on Control Systems Technology, 2018, 26, 248-254.	5.2	87
5	Observer-Based Decentralized Fault Detection and Isolation Strategy for Networked Multirobot Systems. IEEE Transactions on Control Systems Technology, 2015, 23, 1465-1476.	5.2	77
6	Formation Control of Underactuated Surface Vessels using the Null-Space-Based Behavioral Control. , 2006, , .		67
7	The Entrapment/Escorting Mission. IEEE Robotics and Automation Magazine, 2008, 15, 22-29.	2.0	65
8	Flocking for multi-robot systems via the Null-Space-based Behavioral control. Swarm Intelligence, 2010, 4, 37-56.	2.2	63
9	USC CINAPS Builds Bridges. IEEE Robotics and Automation Magazine, 2010, 17, 20-30.	2.0	57
10	The Null-Space-based Behavioral Control for Mobile Robots with Velocity Actuator Saturations. International Journal of Robotics Research, 2010, 29, 1317-1337.	8.5	49
11	The NSB control: a behavior-based approach for multi-robot systems. Paladyn, 2010, 1, 48-56.	2.7	47
12	A Decentralized Controller-Observer Scheme for Multi-Agent Weighted Centroid Tracking. IEEE Transactions on Automatic Control, 2013, 58, 1310-1316.	5.7	47
13	An Observability Metric for Underwater Vehicle Localization Using Range Measurements. Sensors, 2013, 13, 16191-16215.	3.8	42
14	Underwater localization using single beacon measurements: Observability analysis for a double integrator system. Ocean Engineering, 2017, 142, 650-665.	4.3	34
15	Assistive robot operated via P300-based brain computer interface. , 2017, , .		32
16	Adaptive trajectory tracking for quadrotor MAVs in presence of parameter uncertainties and external disturbances. , 2013, , .		30
17	Observability analysis of relative localization for AUVs based on ranging and depth measurements. , 2010, , .		29
18	Stability analysis for the Null-Space-based Behavioral control for multi-robot systems. , 2008, , .		28

#	ARTICLE	IF	CITATIONS
19	Observability metric for the relative localization of AUVs based on range and depth measurements: Theory and experiments. , 2011, , .		27
20	Widely Scalable Mobile Underwater Sonar Technology: An Overview of the H2020 WiMUST Project. Marine Technology Society Journal, 2016, 50, 42-53.	0.4	25
21	Cooperative caging using autonomous aquatic surface vehicles. , 2010, , .		24
22	Experiments of Formation Control with Collisions Avoidance using the Null-Space-Based Behavioral Control. , 2006, , .		22
23	Coordinated control of mobile antennas for ad hoc networks. International Journal of Modelling, Identification and Control, 2006, 1, 63.	0.2	21
24	Experiences of formation control of multi-robot systems with the Null-Space-based Behavioral Control. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	21
25	Distributed Fault Detection Isolation and Accommodation for Homogeneous Networked Discrete-Time Linear Systems. IEEE Transactions on Automatic Control, 2017, 62, 4840-4847.	5.7	21
26	Decentralized centroid and formation control for multi-robot systems. , 2013, , .		20
27	Cooperative caging and transport using autonomous aquatic surface vehicles. Intelligent Service Robotics, 2012, 5, 73-87.	2.6	18
28	Flocking for Multi-Robot Systems via the Null-Space-based Behavioral Control. , 2008, , .		17
29	The Entrapment/Escorting Mission for a Multi-Robot System: Theory and Experiments. , 2007, , .		14
30	BCI-Controlled Assistive Manipulator: Developed Architecture and Experimental Results. IEEE Transactions on Cognitive and Developmental Systems, 2021, 13, 91-104.	3.8	12
31	A self-configuring MANET for coverage area adaptation through kinematic control of a platoon of mobile robots. , 2005, , .		11
32	Opportunistic localization of underwater robots using drifters and boats. , 2012, , .		11
33	The Null-Space based Behavioral control for a team of cooperative mobile robots with actuator saturations. , 2009, , .		10
34	Safety-Related Tasks Within the Set-Based Task-Priority Inverse Kinematics Framework. , 2018, , .		8
35	Multi-Robot Collaboration with Range-Limited Communication: Experiments with Two Underactuated ASVs. Springer Tracts in Advanced Robotics, 2010, , 443-453.	0.4	8
36	A decentralized fault tolerant control strategy for multi-robot systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 6642-6647.	0.4	7

#	ARTICLE	IF	CITATIONS
37	Observability analysis for single range localization. , 2015, , .		7
38	EXPERIMENTAL KINEMATIC COMPARISON OF BEHAVIORAL APPROACHES FOR MOBILE ROBOTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 295-300.	0.4	6
39	Use of a Robot Platoon to Implement Mobile Ad-hoc NETwork in Rescue Scenario - Preliminary Experimental Results. , 2007, , .		6
40	The Null-Space based Behavioral control for non-holonomic mobile robots with actuators velocity saturation. , 2009, , .		6
41	Experiments in autonomous navigation with an under-actuated surface vessel via the Null-Space based Behavioral control. , 2009, , .		5
42	A decentralized observer-controller scheme for centroid and formation control with bounded control input*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 252-257.	0.4	5
43	A decentralized observer for a general class of Lipschitz systems. , 2013, , .		5
44	ISME activity on the use of Autonomous Surface and Underwater Vehicles for acoustic surveys at sea. Acta IMEKO (2012), 2018, 7, 24.	0.7	5
45	A decentralized fault detection and isolation strategy for networked robots. , 2013, , .		4
46	Distributed fault detection and recovery for networked robots. , 2014, , .		4
47	Shape estimate of a streamer of hydrophones towed by an Autonomous Underwater Vehicle**This work has received funding from the European Unions Horizon 2020 research and innovation programme under grant agreement No. 645141 (WiMUST project). IFAC-PapersOnLine, 2016, 49, 181-186.	0.9	4
48	Overview and first year progress of the Widely scalable Mobile Underwater Sonar Technology H2020 project**This work has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 645141 (WiMUST project, http://www.wimust.eu).. IFAC-PapersOnLine, 2016, 49, 430-433.	0.9	4
49	Distributed Fault-Tolerant Control for Networked Robots in the Presence of Recoverable/Unrecoverable Faults and Reactive Behaviors. Frontiers in Robotics and AI, 2017, 4, .	3.2	4
50	PRELIMINARY EXPERIMENTS OF FORMATION CONTROL USING THE NULL-SPACE-BASED BEHAVIORAL CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 635-640.	0.4	3
51	Experiments of obstacles and collision avoidance with a distributed multi-robot system. , 2012, , .		3
52	Swarm of robots flocking via the null-space-based behavioral control. , 2009, , .		2
53	RRS: Rapidly-Exploring Random Snakes a New Method for Mobile Robot Path Planning. Advances in Intelligent Systems and Computing, 2016, , 291-305.	0.6	2
54	The NSB control for 3-dimensional flocking of multi-robot systems. , 2008, , .		1

#	ARTICLE	IF	CITATIONS
55	Observability metric for the relative localization of AUVs based on range and depth measurements: Theory and experiments. , 2011, , .		1
56	Assistive Control Framework for Remotely Operated Vehicles. , 2018, , .		1
57	Distributed Fault Detection and Isolation for Cooperative Mobile Manipulators. , 2019, , .		1
58	Dynamic Modelling of a Streamer of Hydrophones Towed with an Autonomous Underwater Vehicle. Lecture Notes in Computer Science, 2018, , 179-192.	1.3	1
59	Behavior-Based Systems. , 2020, , 1-7.		1
60	A decentralized controller-observer scheme for multi-robot weighted centroid tracking. , 2011, , .		0
61	Distributed fault-tolerant strategy for networked robots with both cooperative and reactive controls. , 2014, , .		0
62	Localization of an Array of Hydrophones Towed by an Autonomous Underwater Vehicle. , 2018, , .		0
63	Multiple Mobile Robots. , 2021, , 1389-1396.		0
64	Minimizing Sum Distortion for Static and Mobile Fusion Center Placement in Underwater Sensor Networks. , 2009, , .		0
65	Multiple Mobile Robots. , 2020, , 1-8.		0