

Giuseppe Oriolo

List of Publications by Year in descending order

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144
papers

5,305
citations

236925

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128289

60
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145
all docs

145
docs citations

145
times ranked

3962
citing authors

#	ARTICLE	IF	CITATIONS
1	WMR control via dynamic feedback linearization: design, implementation, and experimental validation. IEEE Transactions on Control Systems Technology, 2002, 10, 835-852.	5.2	615
2	Non-invasive brain-computer interface system: Towards its application as assistive technology. Brain Research Bulletin, 2008, 75, 796-803.	3.0	250
3	Image-Based Visual Servoing for Nonholonomic Mobile Robots Using Epipolar Geometry. , 2007, 23, 87-100.		199
4	Real-time map building and navigation for autonomous robots in unknown environments. IEEE Transactions on Systems, Man, and Cybernetics, 1998, 28, 316-333.	5.0	170
5	Feature Depth Observation for Image-based Visual Servoing: Theory and Experiments. International Journal of Robotics Research, 2008, 27, 1093-1116.	8.5	151
6	Mutual localization in multi-robot systems using anonymous relative measurements. International Journal of Robotics Research, 2013, 32, 1302-1322.	8.5	141
7	Kinematically Redundant Manipulators. , 2008, , 245-268.		138
8	Trajectory Planning and Control for Planar Robots with Passive Last Joint. International Journal of Robotics Research, 2002, 21, 575-590.	8.5	110
9	Fuzzy maps: A new tool for mobile robot perception and planning. Journal of Field Robotics, 1997, 14, 179-197.	0.7	100
10	Stabilization of an underactuated planar 2R manipulator. , 2000, 10, 181-198.		100
11	Simultaneous Calibration of Odometry and Sensor Parameters for Mobile Robots. IEEE Transactions on Robotics, 2013, 29, 475-492.	10.3	97
12	Control of Wheeled Mobile Robots: An Experimental Overview. Lecture Notes in Control and Information Sciences, 2001, , 181-226.	1.0	96
13	The Sensor-based Random Graph Method for Cooperative Robot Exploration. IEEE/ASME Transactions on Mechatronics, 2009, 14, 163-175.	5.8	94
14	Task control with remote center of motion constraint for minimally invasive robotic surgery. , 2013, , .		79
15	Decentralized multi-robot encirclement of a 3D target with guaranteed collision avoidance. Autonomous Robots, 2016, 40, 245-265.	4.8	77
16	Robust stabilization via iterative state steering with an application to chained-form systems. Automatica, 2001, 37, 71-79.	5.0	68
17	Frontier-Based Probabilistic Strategies for Sensor-Based Exploration. , 0, , .		66
18	A framework for the stabilization of general nonholonomic systems with an application to the plate-ball mechanism. , 2005, 21, 162-175.		62

#	ARTICLE	IF	CITATIONS
19	Humanoid Robots in Aircraft Manufacturing: The Airbus Use Cases. IEEE Robotics and Automation Magazine, 2019, 26, 30-45.	2.0	57
20	MPC for Humanoid Gait Generation: Stability and Feasibility. IEEE Transactions on Robotics, 2020, 36, 1171-1188.	10.3	54
21	Random Walks in Swarm Robotics: An Experiment with Kilobots. Lecture Notes in Computer Science, 2016, , 185-196.	1.3	50
22	A sensitivity approach to optimal spline robot trajectories. Automatica, 1991, 27, 535-539.	5.0	49
23	Motion Planning for Mobile Manipulators along Given End-effector Paths. , 0, , .		47
24	Image-based visual servoing schemes for nonholonomic mobile manipulators. Robotica, 2007, 25, 131-145.	1.9	47
25	Vision-based interception of a moving target with a nonholonomic mobile robot. Robotics and Autonomous Systems, 2007, 55, 419-432.	5.1	46
26	Aerial grasping of a moving target with a quadrotor UAV. , 2012, , .		46
27	On-Line Estimation of Feature Depth for Image-Based Visual Servoing Schemes. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	44
28	Nonhomogeneous Nilpotent Approximations for Nonholonomic Systems With Singularities. IEEE Transactions on Automatic Control, 2004, 49, 261-266.	5.7	38
29	Kinematic modeling and redundancy resolution for nonholonomic mobile manipulators. , 0, , .		37
30	Redundant Robots. Springer Handbooks, 2016, , 221-242.	0.6	36
31	Visual servoing for path reaching with nonholonomic robots. Robotica, 2011, 29, 1037-1048.	1.9	35
32	A Bayesian framework for optimal motion planning with uncertainty. , 2008, , .		34
33	Simultaneous maximum-likelihood calibration of odometry and sensor parameters. , 2008, , .		33
34	Distributed Target Localization and Encirclement with a Multi-Robot System. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 151-156.	0.4	32
35	Intrinsically stable MPC for humanoid gait generation. , 2016, , .		32
36	A position-based visual servoing scheme for following paths with nonholonomic mobile robots. , 2008, , .		29

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37	An Iterative Learning Controller for Nonholonomic Mobile Robots. International Journal of Robotics Research, 1998, 17, 954-970.	8.5	28
38	Steering a class of redundant mechanisms through end-effector generalized forces. IEEE Transactions on Automation Science and Engineering, 1998, 14, 329-335.	2.3	28
39	Dynamic IBVS control of an underactuated UAV. , 2012, , .		28
40	Vision-based corridor navigation for humanoid robots. , 2013, , .		28
41	Robot Obstacle Avoidance Using Vortex Fields. , 1991, , 227-235.		27
42	Nonholonomic behavior in redundant robots under kinematic control. IEEE Transactions on Automation Science and Engineering, 1997, 13, 776-782.	2.3	26
43	A control-based approach to task-constrained motion planning. , 2009, , .		26
44	Repeatable Motion Planning for Redundant Robots Over Cyclic Tasks. IEEE Transactions on Robotics, 2017, 33, 1170-1183.	10.3	26
45	A Randomized Strategy for Cooperative Robot Exploration. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	25
46	Humanoid Gait Generation on Uneven Ground using Intrinsically Stable MPC. IFAC-PapersOnLine, 2018, 51, 393-398.	0.9	25
47	A Multimode Teleoperation Framework for Humanoid Loco-Manipulation: An Application for the iCub Robot. IEEE Robotics and Automation Magazine, 2019, 26, 73-82.	2.0	25
48	Mutual localization in a multi-robot system with anonymous relative position measures. , 2009, , .		24
49	Learning soft task priorities for control of redundant robots. , 2016, , .		24
50	Humanoid odometric localization integrating kinematic, inertial and visual information. Autonomous Robots, 2016, 40, 867-879.	4.8	23
51	AN ADAPTIVE SCHEME FOR IMAGE-BASED VISUAL SERVOING OF AN UNDERACTUATED UAV. International Journal of Robotics and Automation, 2014, 29, .	0.1	22
52	Kinematic control of nonholonomic mobile manipulators in the presence of steering wheels. , 2010, , .		21
53	An Image-based Visual Servoing Scheme for Following Paths with Nonholonomic Mobile Robots. , 2008, , .		20
54	Output feedback image-based visual servoing control of an underactuated unmanned aerial vehicle. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2014, 228, 435-448.	1.0	20

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55	Ground and Aerial Mutual Localization Using Anonymous Relative-Bearing Measurements. IEEE Transactions on Robotics, 2016, 32, 1133-1151.	10.3	20
56	3D Structure Identification from Image Moments. , 2008, , .		19
57	3-D mutual localization with anonymous bearing measurements. , 2012, , .		19
58	Task-constrained motion planning with moving obstacles. , 2013, , .		19
59	Hierarchical tracking task control in redundant manipulators with compliance control in the null-space. Mechatronics, 2018, 55, 171-179.	3.3	19
60	A Randomized Method for Integrated Exploration. , 2006, , .		18
61	Vision-based Odometric Localization for humanoids using a kinematic EKF. , 2012, , .		18
62	Multi-task Cooperative Control in a Heterogeneous Ground-Air Robot Team. IFAC-PapersOnLine, 2015, 48, 53-58.	0.9	18
63	Probabilistic mutual localization in multi-agent systems from anonymous position measures. , 2010, , .		17
64	Vision-based maze navigation for humanoid robots. Autonomous Robots, 2017, 41, 293-309.	4.8	17
65	Whole-body motion planning for humanoids based on CoM movement primitives. , 2015, , .		16
66	Force, orientation and position control in redundant manipulators in prioritized scheme with null space compliance. Control Engineering Practice, 2019, 85, 23-33.	5.5	16
67	<title>Comparison of three uncertainty calculus techniques for ultrasonic map building</title>. , 1996, , .		15
68	ENERGY-BASED CONTROL OF THE BUTTERFLY ROBOT. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 1-6.	0.4	15
69	A swarm aggregation algorithm based on local interaction for multi-robot systems with actuator saturations. , 2012, , .		15
70	Planning safe cyclic motions under repetitive task constraints. , 2013, , .		15
71	Learning soft task priorities for safe control of humanoid robots with constrained stochastic optimization. , 2016, , .		15
72	Visual Servoing with Exploitation of Redundancy: An Experimental Study. , 2008, , .		14

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73	Sensor-based Exploration for General Robotic Systems. , 2008, , .		14
74	Policy gradient learning for a humanoid soccer robot. Robotics and Autonomous Systems, 2009, 57, 808-818.	5.1	14
75	A general framework for task-constrained motion planning with moving obstacles. Robotica, 2019, 37, 575-598.	1.9	14
76	Visual servoing of a wheeled mobile robot for intercepting a moving object. , 2005, , .		13
77	Image-based visual servoing for nonholonomic mobile robots with central catadioptric camera. , 0, , .		13
78	Robotic visual servoing of moving targets. , 2013, , .		13
79	Relative localization and identification in a heterogeneous multi-robot system. , 2013, , .		13
80	A swarm aggregation algorithm based on local interaction with actuator saturations and integrated obstacle avoidance. , 2013, , .		13
81	Humanoid whole-body planning for loco-manipulation tasks. , 2017, , .		13
82	Sensor-Based Task-Constrained Motion Planning using Model Predictive Control. IFAC-PapersOnLine, 2018, 51, 220-225.	0.9	13
83	Vision-based trajectory control for humanoid navigation. , 2013, , .		12
84	Closed-loop MPC with Dense Visual SLAM - Stability through Reactive Stepping. , 2019, , .		12
85	Vision-Based Loitering Over a Target for a Fixed-Wing UAV. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 51-57.	0.4	11
86	Cooperative control of a heterogeneous multi-robot system based on relative localization. , 2014, , .		11
87	On the solvability of the Mutual Localization problem with Anonymous Position Measures. , 2010, , .		10
88	Task-oriented whole-body planning for humanoids based on hybrid motion generation. , 2014, , .		10
89	Gait Generation using Intrinsically Stable MPC in the Presence of Persistent Disturbances. , 2019, , .		10
90	Bayesian Neural Network Modeling and Hierarchical MPC for a Tendon-Driven Surgical Robot With Uncertainty Minimization. IEEE Robotics and Automation Letters, 2021, 6, 2642-2649.	5.1	10

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91	Learning optimal trajectories for non-holonomic systems. International Journal of Control, 2000, 73, 980-991.	1.9	9
92	Robust stabilization of the plate-ball manipulation system. , 0, , .		9
93	A multimode navigation system for an assistive robotics project. Autonomous Robots, 2008, 25, 383-404.	4.8	9
94	Dynamically feasible task-constrained motion planning with moving obstacles. , 2014, , .		9
95	A Decentralized Strategy for Cooperative Robot Exploration. , 2007, , .		9
96	Brain-Operated Assistive Devices: the ASPICE Project. , 0, , .		8
97	Development of a multimode navigation system for an assistive robotics project. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	8
98	Real-time planning and execution of evasive motions for a humanoid robot. , 2016, , .		8
99	Real-time pursuit-evasion with humanoid robots. , 2017, , .		8
100	MPC-based humanoid pursuit-evasion in the presence of obstacles. , 2017, , .		8
101	Humanoid gait generation for walk-to locomotion using single-stage MPC. , 2017, , .		8
102	Parallel collision check for sensor based real-time motion planning. , 2017, , .		8
103	Anti-Jackknifing Control of Tractor-Trailer Vehicles via Intrinsically Stable MPC. , 2020, , .		8
104	An Efficient Real-Time NMPC for Quadrotor Position Control under Communication Time-Delay. , 2020, , .		8
105	Wheeled Robots. , 2014, , 1-9.		7
106	Task-constrained motion planning for underactuated robots. , 2015, , .		7
107	An Opportunistic Strategy for Motion Planning in the Presence of Soft Task Constraints. IEEE Robotics and Automation Letters, 2020, 5, 6294-6301.	5.1	7
108	ADHERENT: Learning Human-like Trajectory Generators for Whole-body Control of Humanoid Robots. IEEE Robotics and Automation Letters, 2022, 7, 2779-2786.	5.1	7

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109	Learning Robust Task Priorities of QP-Based Whole-Body Torque-Controllers. , 2018, , .		6
110	ZMP Constraint Restriction for Robust Gait Generation in Humanoids. , 2020, , .		6
111	Enforcing Constraints over Learned Policies via Nonlinear MPC: Application to the Pendubot. IFAC-PapersOnLine, 2020, 53, 9502-9507.	0.9	6
112	Reconfiguration of redundant robots under kinematic inversion. Advanced Robotics, 1995, 10, 249-263.	1.8	5
113	Path Planning for Mobile Robots via Skeletons on Fuzzy Maps. Intelligent Automation and Soft Computing, 1996, 2, 355-374.	2.1	5
114	A globally convergent steering algorithm for regular nonholonomic systems. , 0, , .		5
115	An Integrated Motion Planner/Controller for Humanoid Robots on Uneven Ground. , 2019, , .		5
116	A behavior-based framework for safe deployment of humanoid robots. Autonomous Robots, 2021, 45, 435.	4.8	5
117	Feasibility-Driven Step Timing Adaptation for Robust MPC-Based Gait Generation in Humanoids. IEEE Robotics and Automation Letters, 2021, 6, 1582-1589.	5.1	5
118	On-Line Learning for Planning and Control of Underactuated Robots With Uncertain Dynamics. IEEE Robotics and Automation Letters, 2022, 7, 358-365.	5.1	5
119	An Intrinsically Stable MPC Approach for Anti-Jackknifing Control of Tractor-Trailer Vehicles. IEEE/ASME Transactions on Mechatronics, 2022, 27, 4417-4428.	5.8	5
120	Robot localization in nonsmooth environments: experiments with a new filtering technique. , 0, , .		4
121	Accurate Map Building via Fusion of Laser and Ultrasonic Range Measures. Studies in Fuzziness and Soft Computing, 2001, , 257-279.	0.8	4
122	Mutual localization using anonymous bearing measurements. , 2011, , .		4
123	The ASPICE project. , 2006, , .		3
124	Non-Invasive Brain-Computer Interface System to Operate Assistive Devices. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2532-5.	0.5	3
125	Whole-body planning for humanoids along deformable tasks. , 2016, , .		3
126	Safe trajectory optimization for whole-body motion of humanoids. , 2017, , .		3

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127	Anytime Whole-Body Planning/Replanning for Humanoid Robots. , 2018, , .		3
128	Comments on "Adaptive variable structure set-point control of underactuated robots". IEEE Transactions on Automatic Control, 2001, 46, 809-811.	5.7	2
129	Gait generation via intrinsically stable MPC for a multi-mass humanoid model. , 2017, , .		2
130	Sensor-based Whole-Body Planning/Replanning for Humanoid Robots. , 2019, , .		2
131	Conservation status of the Italian flora under the 92/43/EEC "Habitats" Directive. Plant Biosystems, 2021, 155, 1168-1173.	1.6	2
132	Robust Stabilization of the Angular Velocity for an Underactuated Rigid Spacecraft. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 687-692.	0.4	1
133	An exploration method for general robotic systems equipped with multiple sensors. , 2009, , .		1
134	Two Measurement Scenarios for Anonymous Mutual Localization in Multi-UAV Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 13-18.	0.4	1
135	Stabilization of an underactuated planar 2R manipulator. International Journal of Robust and Nonlinear Control, 2000, 10, 181-198.	3.7	1
136	Least Conservative Linearized Constraint Formulation for Real-Time Motion Generation. IFAC-PapersOnLine, 2020, 53, 9384-9390.	0.9	1
137	INCREASING THE CONNECTIVITY OF PROBABILISTIC ROADMAPS VIA GENETIC POST-PROCESSING. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 212-217.	0.4	0
138	Image-based road network clearing without localization and without maps using a team of UAVs. , 2014, , .		0
139	Communication-based and Communication-less approaches for Robust Cooperative Planning in Construction with a Team of UAVs. , 2020, , .		0
140	Wheeled Robots. , 2021, , 2455-2462.		0
141	Towards Safe Human-Quadrotor Interaction: Mixed-Initiative Control via Real-Time NMPC. IEEE Robotics and Automation Letters, 2021, 6, 7611-7618.	5.1	0
142	Wheeled Robots. , 2015, , 1548-1554.		0
143	Wheeled Robots. , 2020, , 1-8.		0
144	Task-Oriented Generation of Stable Motions for Wheeled Inverted Pendulum Robots. , 2022, , .		0