

# Matteo Fumagalli

## List of Publications by Year in descending order

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Version: 2024-02-01

41  
papers

942  
citations

1307594

7  
h-index

1372567

10  
g-index

44  
all docs

44  
docs citations

44  
times ranked

735  
citing authors

#	ARTICLE	IF	CITATIONS
1	Can your drone touch? Exploring the boundaries of consumer-grade multirotors for physical interaction. , 2022, , .		4
2	3D Navigation by UAV using a mono-camera, for precise target tracking for contact inspection of critical infrastructures. , 2021, , .		1
3	Unmanned Aerial Vehicles, Control of Physical Interactions Of. , 2020, , 1-7.		0
4	Interview with Junku Yuh, Principal Investigator of the SAUVIM Project [History]. IEEE Robotics and Automation Magazine, 2018, 25, 98-99.	2.0	1
5	Robotic Technologies for Predictive Maintenance of Assets and Infrastructure [From the Guest Editors]. IEEE Robotics and Automation Magazine, 2018, 25, 9-10.	2.0	3
6	Multimodal Aerial Locomotion: An Approach to Active Tool Handling. IEEE Robotics and Automation Magazine, 2018, 25, 57-65.	2.0	16
7	Application of substantial and sustained force to vertical surfaces using a quadrotor. , 2017, , .		43
8	A 2-DOF Joint With Coupled Variable Output Stiffness. IEEE Robotics and Automation Letters, 2017, 2, 366-372.	5.1	3
9	Mechatronic design of a variable stiffness robotic arm. , 2017, , .		5
10	Autonomous and sustained perching of multirotor platforms on smooth surfaces. , 2017, , .		1
11	Elastic energy storage in leaf springs for a lever-arm based Variable Stiffness Actuator. , 2016, , .		13
12	Mechatronic design of a robotic manipulator for Unmanned Aerial Vehicles. , 2016, , .		19
13	Mechanism for perching on smooth surfaces using aerial impacts. , 2016, , .		39
14	The SHERPA gripper: Grasping of small-scale UAVs. , 2016, , .		4
15	Analysis of an underactuated robotic finger with variable pinch and closure grasp stiffness. , 2016, , .		4
16	A comparison of control approaches for aerial manipulators handling physical impacts. , 2016, , .		0
17	Compliant Aerial Manipulators: Toward a New Generation of Aerial Robotic Workers. IEEE Robotics and Automation Letters, 2016, 1, 477-483.	5.1	98
18	Bilateral human-robot control for semi-autonomous UAV navigation. , 2015, , .		2

#	ARTICLE	IF	CITATIONS
19	Vision-IMU based collaborative control of a blind UAV. , 2015, , .		2
20	A clutch mechanism for switching between position and stiffness control of a variable stiffness actuator. , 2015, , .		7
21	Analysis of a variable stiffness differential drive (VSDD). , 2014, , .		2
22	Hardware and Software Architecture. Springer Theses, 2014, , 85-100.	0.1	0
23	Developing an Aerial Manipulator Prototype: Physical Interaction with the Environment. IEEE Robotics and Automation Magazine, 2014, 21, 41-50.	2.0	129
24	Control of physical interaction through tactile and force sensing during visually guided reaching. , 2014, , .		3
25	Propagation of Force Measurements Through MBSD. Springer Theses, 2014, , 27-45.	0.1	0
26	The Role of Force Perception and Backdrivability in Robot Interaction. Springer Theses, 2014, , 3-12.	0.1	0
27	Robot Vision: Obstacle-Avoidance Techniques for Unmanned Aerial Vehicles. IEEE Robotics and Automation Magazine, 2013, 20, 22-31.	2.0	34
28	Interaction control of an UAV endowed with a manipulator. , 2013, , .		67
29	A modified impedance control for physical interaction of UAVs. , 2013, , .		15
30	Force feedback exploiting tactile and proximal force/torque sensing. Autonomous Robots, 2012, 33, 381-398.	4.8	74
31	Modeling and control of a flying robot for contact inspection. , 2012, , .		113
32	The mVSA-UT: A miniaturized differential mechanism for a continuous rotational variable stiffness actuator. , 2012, , .		30
33	Mechanical design of a manipulation system for unmanned aerial vehicles. , 2012, , .		59
34	Computing robot internal/external wrenches by means of inertial, tactile and F/T sensors: Theory and implementation on the iCub. , 2011, , .		31
35	A comparison between joint level torque sensing and proximal F/T sensor torque estimation: implementation on the iCub. , 2011, , .		12
36	Closed loop control of a rotational joint driven by two antagonistic dielectric elastomer actuators. Proceedings of SPIE, 2010, , .	0.8	10

#	ARTICLE	IF	CITATIONS
37	Exploiting proximal F/T measurements for the iCub active compliance. , 2010, , .		20
38	Approximate optimal control for reaching and trajectory planning in a humanoid robot. , 2010, , .		10
39	Machine-learning based control of a human-like tendon-driven neck. , 2010, , .		11
40	Learning to Exploit Proximal Force Sensing: A Comparison Approach. Studies in Computational Intelligence, 2010, , 149-167.	0.9	19
41	A force sensor for the control of a human-like tendon driven neck. , 2009, , .		11