Hannes HÃ¶ppner

List of Publications by Year
in descending order

21 papers	1,693 citations	1478505 6 h-index	1474206 9 g-index
22 all docs	22 docs citations	22 times ranked	1449 citing authors

#	Article	IF	Citations
1	Simultaneous Motion Tracking and Joint Stiffness Control of Bidirectional Antagonistic Variable-Stiffness Actuators. IEEE Robotics and Automation Letters, 2022, 7, 6614-6621.	5.1	4
2	EDAN: An EMG-controlled Daily Assistant to Help People With Physical Disabilities. , 2020, , .		16
3	CLASH: Compliant Low Cost Antagonistic Servo Hands. , 2018, , .		25
4	Human-Robotic Variable-Stiffness Grasps of Small-Fruit Containers Are Successful Even Under Severely Impaired Sensory Feedback. Frontiers in Neurorobotics, 2018, 12, 70.	2.8	9
5	Elastic Elements in a Wrist Prosthesis for Drumming Reduce Muscular Effort, but Increase Imprecision and Perceived Stress. Frontiers in Neurorobotics, 2018, 12, 9.	2.8	2
6	Human's Capability to Discriminate Spatial Forces at the Big Toe. Frontiers in Neurorobotics, 2018, 12, 13.	2.8	1
7	Blindfolded robotic teleoperation using spatial force feedback to the toe. , 2017, , .		1
8	Hitting the sweet spot: Automatic optimization of energy transfer during tool-held hits. , 2017, , .		2
9	Key Insights into Hand Biomechanics: Human Grip Stiffness Can Be Decoupled from Force by Cocontraction and Predicted from Electromyography. Frontiers in Neurorobotics, 2017, 11, 17.	2.8	21
10	End-effector airbags to accelerate human-robot collaboration. , 2017, , .		17
11	Variable Stiffness Actuators: Review on Design and Components. IEEE/ASME Transactions on Mechatronics, 2016, 21, 2418-2430.	5.8	293
12	Two-dimensional orthoglide mechanism for revealing areflexive human arm mechanical properties. , 2015, , .		2
13	Analysis and Synthesis of the Bidirectional Antagonistic Variable Stiffness Mechanism. IEEE/ASME Transactions on Mechatronics, 2015, 20, 684-695.	5.8	72
14	Soft Robotics with Variable Stiffness Actuators: Tough Robots for Soft Human Robot Interaction. , 2015, , 231-254.		21
15	A new biarticular joint mechanism to extend stiffness ranges. , 2014, , .		1
16	Variable impedance actuators: A review. Robotics and Autonomous Systems, 2013, 61, 1601-1614.	5.1	822
17	Task Dependency of Grip Stiffnessâ€"A Study of Human Grip Force and Grip Stiffness Dependency during Two Different Tasks with Same Grip Forces. PLoS ONE, 2013, 8, e80889.	2.5	15
18	Wrist and forearm rotation of the DLR Hand Arm System: Mechanical design, shape analysis and experimental validation. , 2011, , .		19

#	Article	IF	Citations
19	The DLR hand arm system. , 2011, , .		330
20	The Grasp Perturbator: Calibrating human grasp stiffness during a graded force task. , 2011, , .		10
21	Wrist and forearm rotation of the DLR hand arm system: Mechanical design, shape analysis and experimental validation. , 2011, , .		10