Giulio Rosati

List of Publications by Year
in descending order

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111 papers	3,625 citations	147801 31 h-index	144013 57 g-index
119 all docs	119 docs citations	119 times ranked	2922 citing authors

#	Article	IF	Citations
1	Robotic-Assisted Rehabilitation of the Upper Limb After Acute Stroke. Archives of Physical Medicine and Rehabilitation, 2007, 88, 142-149.	0.9	331
2	Humanâ€“Robot Collaboration in Manufacturing Applications: A Review. Robotics, 2019, 8, 100.	3.5	303
3	Design, Implementation and Clinical Tests of a Wire-Based Robot for Neurorehabilitation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2007, 15, 560-569.	4.9	210
4	Dynamic model with slip for wheeled omnidirectional robots. IEEE Transactions on Automation Science and Engineering, 2002, 18, 285-293.	2.3	183
5	Upper-limb robot-assisted therapy in rehabilitation of acute stroke patients: Focused review and results of new randomized controlled trial. Journal of Rehabilitation Research and Development, 2011, 48, 355.	1.6	153
6	Cutaneous Force Feedback as a Sensory Subtraction Technique in Haptics. IEEE Transactions on Haptics, 2012, 5, 289-300.	2.7	144
7	Robotic Technologies and Rehabilitation: New Tools for Stroke Patientsâ€™ Therapy. BioMed Research International, 2013, 2013, 1-8.	1.9	119
8	The value of robotic systems in stroke rehabilitation. Expert Review of Medical Devices, 2014, 11, 187-198.	2.8	115
9	Effect of visual distraction and auditory feedback on patient effort during robot-assisted movement training after stroke. Journal of NeuroEngineering and Rehabilitation, 2011, 8, 21.	4.6	93
10	Randomized Trial of a Robotic Assistive Device for the Upper Extremity During Early Inpatient Stroke Rehabilitation. Neurorehabilitation and Neural Repair, 2014, 28, 377-386.	2.9	92
11	Collaborative and traditional robotic assembly: a comparison model. International Journal of Advanced Manufacturing Technology, 2019, 102, 1355-1372.	3.0	73
12	Silver nanoparticles inkjet-printed flexible biosensor for rapid label-free antibiotic detection in milk. Sensors and Actuators B: Chemical, 2019, 280, 280-289.	7.8	73
13	Sophia-3: A Semiadaptive Cable-Driven Rehabilitation Device With a Tilting Working Plane. IEEE Transactions on Robotics, 2014, 30, 974-979.	10.3	70
14	Manipulability of a planar wire driven haptic device. Mechanism and Machine Theory, 2002, 37, 215-228.	4.5	68
15	On the Design of Adaptive Cable-Driven Systems. Journal of Mechanisms and Robotics, 2011, 3, .	2.2	62
16	Fully flexible assembly systems (Fâ€FAS): a new concept in flexible automation. Assembly Automation, 2013, 33, 8-21.	1.7	62
17	Real-time defect detection on highly reflective curved surfaces. Optics and Lasers in Engineering, 2009, 47, 379-384.	3.8	57
18	On the Role of Auditory Feedback in Robot-Assisted Movement Training after Stroke: Review of the Literature. Computational Intelligence and Neuroscience, 2013, 2013, 1-15.	1.7	54

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19	3-d.o.f. Wire Driven Planar Haptic Interface. Journal of Intelligent and Robotic Systems: Theory and Applications, 2001, 32, 23-36.	3.4	52
20	Optimizing Stiffness and Dexterity of Planar Adaptive Cable-Driven Parallel Robots. Journal of Mechanisms and Robotics, 2017, 9, .	2.2	52
21	Upper limb rehabilitation robotics after stroke: A perspective from the University of Padua, Italy. Journal of Rehabilitation Medicine, 2009, 41, 981-985.	1.1	45
22	Lateral flow assay modified with time-delay wax barriers as a sensitivity and signal enhancement strategy. Biosensors and Bioelectronics, 2020, 168, 112559.	10.1	43
23	Metabolomics for personalized medicine: the input of analytical chemistry from biomarker discovery to point-of-care tests. Analytical and Bioanalytical Chemistry, 2022, 414, 759-789.	3.7	43
24	Trajectory planning of a suspended cable driven parallel robot with reconfigurable end effector. Robotics and Computer-Integrated Manufacturing, 2017, 48, 1-11.	9.9	41
25	The place of robotics in post-stroke rehabilitation. Expert Review of Medical Devices, 2010, 7, 753-758.	2.8	39
26	Effect of task-related continuous auditory feedback during learning of tracking motion exercises. Journal of NeuroEngineering and Rehabilitation, 2012, 9, 79.	4.6	38
27	Effects of Complementary Auditory Feedback in Robot-Assisted Lower Extremity Motor Adaptation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 775-786.	4.9	34
28	Modelling and optimization of fully flexible assembly systems (Fâ€FAS). Assembly Automation, 2013, 33, 165-174.	1.7	34
29	Robotic Upper Limb Rehabilitation after Acute Stroke by NeReBot: Evaluation of Treatment Costs. BioMed Research International, 2014, 2014, 1-5.	1.9	34
30	The influence of the product characteristics on human-robot collaboration: a model for the performance of collaborative robotic assembly. International Journal of Advanced Manufacturing Technology, 2020, 106, 2317-2331.	3.0	34
31	Performance of cable suspended robots for upper limb rehabilitation. , 2007, , .		33
32	Substituting auditory for visual feedback to adapt to altered dynamic and kinematic environments during reaching. Experimental Brain Research, 2012, 221, 33-41.	1.5	33
33	Validation of a Footwear-Based Gait Analysis System With Action-Related Feedback. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 971-980.	4.9	33
34	Nanodiagnostics to Face SARS-CoV-2 and Future Pandemics: From an Idea to the Market and Beyond. ACS Nano, 2021, 15, 17137-17149.	14.6	32
35	Using a Fingertip Tactile Device to Substitute Kinesthetic Feedback in Haptic Interaction. Lecture Notes in Computer Science, 2010, , 125-130.	1.3	31
36	Design of a New 5 d.o.f. Wire-Based Robot for Rehabilitation. , 0, , .		30

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37	On-line dimensional measurement of small components on the eyeglasses assembly line. Optics and Lasers in Engineering, 2009, 47, 320-328.	3.8	30
38	Wearable and fully printed microfluidic nanosensor for sweat rate, conductivity, and copper detection with healthcare applications. Biosensors and Bioelectronics, 2022, 202, 114005.	10.1	29
39	A plug, print & play inkjet printing and impedance-based biosensing technology operating through a smartphone for clinical diagnostics. Biosensors and Bioelectronics, 2022, 196, 113737.	10.1	28
40	Agility in assembly systems: a comparison model. Assembly Automation, 2017, 37, 411-421.	1.7	26
41	Design and Optimal Control of an Underactuated Cable-Driven Microâ€“Macro Robot. IEEE Robotics and Automation Letters, 2017, 2, 896-903.	5.1	25
42	Trajectory Optimization of a Redundant Serial Robot Using Cartesian via Points and Kinematic Decoupling. Robotics, 2019, 8, 101.	3.5	25
43	Label-free and reagentless electrochemical genosensor based on graphene acid for meat adulteration detection. Biosensors and Bioelectronics, 2022, 195, 113628.	10.1	25
44	The Microbiome Meets Nanotechnology: Opportunities and Challenges in Developing New Diagnostic Devices. Advanced Materials, 2021, 33, e2006104.	21.0	24
45	Modeling and Control of a 3-DOF pendulum-like manipulator. , 2011, , .		23
46	Hybrid fexible assembly systems (H-FAS): bridging the gap between traditional and fully flexible assembly systems. International Journal of Advanced Manufacturing Technology, 2015, 81, 1289-1301.	3.0	23
47	Mixed-model sequencing optimization for an automated single-station fully flexible assembly system (F-FAS). International Journal of Advanced Manufacturing Technology, 2014, 70, 797-812.	3.0	20
48	Design and construction of a variable-aperture gripper for flexible automated assembly. Robotics and Computer-Integrated Manufacturing, 2017, 48, 157-166.	9.9	19
49	Design and Performance of an Elbow Assisting Mechanism. Machines, 2020, 8, 68.	2.2	19
50	Planar Robotic Systems for Upper-Limb Post-Stroke Rehabilitation. , 2008, , .		17
51	Design and control of two planar cable-driven robots for upper-limb neurorehabilitation. , 2009, , .		17
52	Inkjet Printed Interdigitated Biosensor for Easy and Rapid Detection of Bacteriophage Contamination: a Preliminary Study for Milk Processing Control Applications. Chemosensors, 2019, 7, 8.	3.6	17
53	Improving robotics for neurorehabilitation: Enhancing engagement, performance, and learning with auditory feedback. , 2011, 2011, 5975373.		16
54	Inkjet sensors produced by consumer printers with smartphone impedance readout. Sensing and Bio-Sensing Research, 2019, 26, 100308.	4.2	15

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55	Design of a single-dof active hand orthosis for neurorehabilitation. , 2009, , .		14
56	Performance Improvement by Layout Designs of Conductive Polymer Microelectrode Based Impedimetric Biosensors. Electroanalysis, 2014, 26, 1400-1408.	2.9	14
57	Effects of Kinesthetic and Cutaneous Stimulation During the Learning of a Viscous Force Field. IEEE Transactions on Haptics, 2014, 7, 251-263.	2.7	13
58	A Novel Collision Avoidance Method for Serial Robots. Mechanisms and Machine Science, 2019, , 293-301.	0.5	13
59	Lactate Dehydrogenase and Glutamate Pyruvate Transaminase biosensing strategies for lactate detection on screen-printed sensors. Catalysis efficiency and interference analysis in complex matrices: from cell cultures to sport medicine. Sensing and Bio-Sensing Research, 2018, 21, 54-64.	4.2	12
60	Changes in muscle coordination patterns induced by exposure to a viscous force field. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 58.	4.6	11
61	On the Use of Cable-Driven Robots in Early Inpatient Stroke Rehabilitation. Mechanisms and Machine Science, 2017, , 551-558.	0.5	10
62	Compliant Control of Post-Stroke Rehabilitation Robots: Using Movement-Specific Models to Improve Controller Performance. , 2008, , .		9
63	Implementation framework for a fully flexible assembly system (F-FAS). Assembly Automation, 2015, 35, 114-121.	1.7	9
64	Working Cycle Sequence Optimization for Industrial Robots. Mechanisms and Machine Science, 2021, , 228-236.	0.5	9
65	Rehabilitation robotics after stroke: a bibliometric literature review. Expert Review of Medical Devices, 2022, 19, 405-421.	2.8	9
66	A haptic system for robotic assisted spine surgery. , 0, , .		8
67	Wheeled Omni-Directional Robot Dynamics Including Slip. , 2002, , 201.		7
68	Performance Analysis of Planar Cable-Based Parallel Manipulators. , 2010, , .		7
69	Development of a haptic teleoperation system for remote motor and functional evaluation of hand in patients with neurological impairments. , 2010, , .		7
70	Convenience analysis and validation of a fully flexible assembly system. , 2011, , .		7
71	Inkjet-printed fully customizable and low-cost electrodes matrix for gesture recognition. Scientific Reports, 2021, 11, 14938.	3.3	7
72	Performance Assessment of a 3D Cable-Driven Haptic Device. , 2008, , .		6

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73	A Novel Perspective in the Design of Cable-Driven Systems. , 2008, , .		6
74	Design and Construction of a Bilateral Haptic System for the Remote Assessment of the Stiffness and Range of Motion of the Hand. Sensors, 2016, 16, 1633.	3.8	6
75	Modeling of SAM Impedance Onto Gold and Silver Thin-Film Mass-Produced Electrodes and Their Use for Optimization of Lactic Acid Detection. IEEE Transactions on Nanobioscience, 2016, 15, 756-764.	3.3	6
76	Optimization of a Kitting Line: A Case Study. Robotics, 2019, 8, 70.	3.5	6
77	Implementation of a Water Compensator for Total Body Irradiation. IEEE Transactions on Biomedical Engineering, 2005, 52, 1741-1747.	4.2	5
78	Haptic Stimulation for Improving Training of a Motor Imagery BCI Developed for a Hand-Exoskeleton in Rehabilitation. , 2019, 2019, 1127-1132.		5
79	Effect of End-Effector Compliance on Collisions in Robotic Teleoperation. Applied Sciences (Switzerland), 2020, 10, 9077.	2.5	5
80	First Experimental Testing of a Dynamic Minimum Tension Control (DMTC) for Cable Driven Parallel Robots. Mechanisms and Machine Science, 2015, , 239-248.	0.5	5
81	Throughput maximization and buffer design of robotized flexible production systems with feeder renewals and priority rules. International Journal of Advanced Manufacturing Technology, 2016, 85, 891-907.	3.0	4
82	Performance evaluation of a new design of cable-suspended camera system. , 2017, , .		4
83	Requirements and Solutions for Motion Limb Assistance of COVID-19 Patients. Robotics, 2022, 11, 45.	3.5	4
84	Rehabilitation robotics in Padua, Italy. , 2007, , .		3
85	Using Sound feedback to counteract visual distractor during robot-assisted movement training. , 2009, , .		3
86	Flexible assembly system for heat exchanger coils. , 2011, , .		3
87	Improving performance of cable robots by adaptively changing minimum tension in cables. International Journal of Precision Engineering and Manufacturing, 2017, 18, 673-680.	2.2	3
88	Culture Mediums and Buffer Effect on Screen-printed Carbon Electrodes for Continuous Voltammetric Monitoring of in vitro Cell Cultures Lactate Production. Procedia Technology, 2017, 27, 246-247.	1.1	3
89	A dynamic model for the optimization of rotatory feeding devices. Mechanism and Machine Theory, 2021, 166, 104479.	4.5	3
90	Design and Operation Improvements for CADEL Cable-Driven Elbow Assisting Device. Mechanisms and Machine Science, 2021, , 503-511.	0.5	3

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91	Vibration Energy Harvesting from Raindrops Impacts: Experimental Tests and Interpretative Models. Applied Sciences (Switzerland), 2022, 12, 3249.	2.5	3
92	Robotic therapy: a novel approach in upper-limb neurorehabilitation after stroke. Neurological Sciences, 2007, 28, 294-294.	1.9	2
93	First Test Results of a Haptic Tele-Operation System to Enhance Stability of Telescopic Handlers. , 2010, , .		2
94	Development of a four-channel haptic system for remote assessment of patients with impaired hands. Robotica, 2017, 35, 1975-1991.	1.9	2
95	A simple and accessible inkjet platform for ultra-short concept-to-prototype sEMG electrodes production. , 2019, 2019, 5765-5768.		2
96	Advances in Mechanical Systems Dynamics. Robotics, 2020, 9, 12.	3.5	2
97	Optimizing Cycle Time of Industrial Robotic Tasks with Multiple Feasible Configurations at the Working Points. Robotics, 2022, 11, 16.	3.5	2
98	Title is missing!. Journal of Dynamical and Control Systems, 2000, 10, 399-417.	0.4	1
99	First experimental results of an integrated robotic system for haptic teleoperation. , 2007, , .		1
100	A Haptic System to Enhance Stability of Heavy Duty Machines. , 2008, , .		1
101	Robot-assisted gait training with complementary auditory feedback: Results on short-term motor adaptation. , 2012, , .		1
102	A Higher-Order Method for Dynamic Optimization of Controllable Linear Time-Invariant Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2013, 135, .	1.6	1
103	Comparative study of two measurement/modeling techniques for biodevices functionalization assessment in agri-food applications. , 2015, , .		1
104	Functional Design of a Robotic Gripper forÂAdaptive Robotic Assembly. Mechanisms and Machine Science, 2017, , 257-265.	0.5	1
105	Sales Kit Automated Production: An Integrated Procedure for Setup Reduction in Case of High Products Variety. Applied Sciences (Switzerland), 2021, 11, 10110.	2.5	1
106	Point-of-Care Sensors in Clinical Environments: Potential and Challenges. , 2022, , .		1
107	Robot-Aided Upper Limb Rehabilitation in the Acute Phase. , 2007, , .		0
108	A Higher-Order Method for Dynamic Optimization of Controllable LTI Systems. , 2011, , .		0

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109	Optimized Trajectory Planning of Pick and Place Operations to Be Performed by Cable-Driven Parallel Robots. Mechanisms and Machine Science, 2017, , 287-295.	0.5	0
110	Optimization of Cyclic Voltammetric Curve Parameters to Measure Lactate Concentration in Urine Samples. Lecture Notes in Electrical Engineering, 2018, , 103-110.	0.4	0
111	Vibratory Feeding of Cylindrical Parts: A Dynamic Model. Mechanisms and Machine Science, 2019, , 203-210.	0.5	0