Stelian Coros

List of Publications by Year
in descending order

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42 papers	1,338 citations	471509 17 h-index	434195 31 g-index
42 all docs	42 docs citations	42 times ranked	730 citing authors

#	Article	IF	Citations
1	Spatial Computing and Intuitive Interaction: Bringing Mixed Reality and Robotics Together. IEEE Robotics and Automation Magazine, 2022, 29, 45-57.	2.0	22
2	Programmable Digital Weaves. IEEE Robotics and Automation Letters, 2022, 7, 2891-2896.	5.1	3
3	Learning Solution Manifolds for Control Problems via Energy Minimization. IEEE Robotics and Automation Letters, 2022, 7, 7912-7919.	5.1	1
4	Multi-Arm Payload Manipulation via Mixed Reality. , 2022, , .		4
5	Offline motion libraries and online MPC for advanced mobility skills. International Journal of Robotics Research, 2022, 41, 903-924.	8.5	20
6	Dynamic Manipulation of Deformable Objects With Implicit Integration. IEEE Robotics and Automation Letters, 2021, 6, 4209-4216.	5.1	15
7	Stylized robotic clay sculpting. Computers and Graphics, 2021, 98, 150-164.	2.5	6
8	Designing actuation systems for animatronic figures via globally optimal discrete search. ACM Transactions on Graphics, 2021, 40, 1-10.	7.2	0
9	Designing actuation systems for animatronic figures via globally optimal discrete search. ACM Transactions on Graphics, 2021, 40, 1-10.	7.2	1
10	Understanding the rigid-block equilibrium method by way of mathematical programming. Proceedings of the Institution of Civil Engineers: Engineering and Computational Mechanics, 2021, 174, 178-192.	0.4	1
11	Singularity-Aware Design Optimization for Multi-Degree-of-Freedom Spatial Linkages. IEEE Robotics and Automation Letters, 2021, 6, 6585-6592.	5.1	2
12	Manipulability optimization for multi-arm teleoperation. , 2021, , .		5
13	Go Fetch! - Dynamic Grasps using Boston Dynamics Spot with External Robotic Arm. , 2021, , .		44
14	Animal Gaits on Quadrupedal Robots Using Motion Matching and Model-Based Control. , 2021, , .		9
15	Design and Control of Foam Hands for Dexterous Manipulation. International Journal of Humanoid Robotics, 2020, 17, 1950033.	1.1	12
16	Automated Design of Robotic Hands for In-Hand Manipulation Tasks. International Journal of Humanoid Robotics, 2020, 17, 1950029.	1.1	12
17	Soft Robot Control With a Learned Differentiable Model. , 2020, , .		47
18	A Computational Framework for Designing Skilled Legged-Wheeled Robots. IEEE Robotics and Automation Letters, 2020, 5, 3674-3681.	5.1	14

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19	A Multi-Level Optimization Framework for Simultaneous Grasping and Motion Planning. IEEE Robotics and Automation Letters, 2020, 5, 2966-2972.	5.1	23
20	RoboCut. ACM Transactions on Graphics, 2020, 39, .	7.2	25
21	A harmonic balance approach for designing compliant mechanical systems with nonlinear periodic motions. ACM Transactions on Graphics, 2020, 39, 1-14.	7.2	9
22	Computational Design of Balanced Open Link Planar Mechanisms with Counterweights from User Sketches. , 2020, , .		0
23	Computational Design of Statically Balanced Planar Spring Mechanisms. IEEE Robotics and Automation Letters, 2019, 4, 4438-4444.	5.1	14
24	Expanding Foam as the Material for Fabrication, Prototyping and Experimental Assessment of Low-Cost Soft Robots With Embedded Sensing. IEEE Robotics and Automation Letters, 2019, 4, 761-768.	5.1	21
25	An optimization framework for simulation and kinematic control of Constrained Collaborative Mobile Agents (CCMA) system. , 2019, , .		2
26	Real2Sim. ACM Transactions on Graphics, 2019, 38, 1-13.	7.2	41
27	Design. Fabrication, and Evaluation of Tendon-Driven Multi-Fingered Foam Hands. , 2018, , .		20
28	Computational design of transformables. Computer Graphics Forum, 2018, 37, 103-113.	3.0	12
29	Interactive Robotic Manipulation of Elastic Objects. , 2018, , .		27
30	Computational Design of Robotic Devices From High-Level Motion Specifications. IEEE Transactions on Robotics, 2018, 34, 1240-1251.	10.3	42
31	Computational co-optimization of design parameters and motion trajectories for robotic systems. International Journal of Robotics Research, 2018, 37, 1521-1536.	8.5	54
32	Skaterbots. ACM Transactions on Graphics, 2018, 37, 1-12.	7.2	60
33	Guest Editor's Introduction: Special Section on the ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA). IEEE Transactions on Visualization and Computer Graphics, 2017, 23, 1165-1166.	4.4	1
34	A computational design tool for compliant mechanisms. ACM Transactions on Graphics, 2017, 36, 1-12.	7.2	85
35	Designing structurally-sound ornamental curve networks. ACM Transactions on Graphics, 2016, 35, 1-10.	7.2	59
36	Practice Makes Perfect: An Optimization-Based Approach to Controlling Agile Motions for a Quadruped Robot. IEEE Robotics and Automation Magazine, 2016, 23, 34-43.	2.0	90

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37	Interactive design of 3D-printable robotic creatures. ACM Transactions on Graphics, 2015, 34, 1-9.	7.2	77
38	LinkEdit. ACM Transactions on Graphics, 2015, 34, 1-8.	7.2	53
39	Computational design of linkage-based characters. ACM Transactions on Graphics, 2014, 33, 1-9.	7.2	116
40	Computational design of mechanical characters. ACM Transactions on Graphics, 2013, 32, 1-12.	7.2	216
41	Manufacturing Layered Attenuators for Multiple Prescribed Shadow Images. Computer Graphics Forum, 2012, 31, 603-610.	3.0	23
42	Trajectory Optimization for Cable-Driven Soft Robot Locomotion. , 0, , .		50