

Christian Ott

List of Publications by Year in descending order

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216
papers

6,504
citations

185998

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118652

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222
all docs

222
docs citations

222
times ranked

3314
citing authors

#	ARTICLE	IF	CITATIONS
1	Passive Decoupled Multitask Controller for Redundant Robots. IEEE Transactions on Control Systems Technology, 2023, 31, 1-16.	3.2	7
2	Passive Impedance Control of Robots With Viscoelastic Joints Via Inner-Loop Torque Control. IEEE Transactions on Robotics, 2022, 38, 584-598.	7.3	11
3	Elastic Structure Preserving Impedance Control for Nonlinearly Coupled Tendon-Driven Systems. , 2022, 6, 1982-1987.		1
4	Deflection-Domain Passivity Control of Variable Stiffnesses Based on Potential Energy Reference. IEEE Robotics and Automation Letters, 2022, 7, 4440-4447.	3.3	6
5	A Generalized Index for Fault-Tolerant Control in Operational Space Under Free-Swinging Actuation Failure. IEEE Robotics and Automation Letters, 2022, 7, 1486-1493.	3.3	2
6	From underactuation to quasi-full actuation: Aiming at a unifying control framework for articulated soft robots. International Journal of Robust and Nonlinear Control, 2022, 32, 5453-5484.	2.1	5
7	Exploring planet geology through force-feedback telemanipulation from orbit. Science Robotics, 2022, 7, eabl6307.	9.9	15
8	Safety-Aware Hierarchical Passivity-Based Variable Compliance Control for Redundant Manipulators. IEEE Transactions on Robotics, 2022, 38, 3899-3916.	7.3	11
9	Simultaneous Motion Tracking and Joint Stiffness Control of Bidirectional Antagonistic Variable-Stiffness Actuators. IEEE Robotics and Automation Letters, 2022, 7, 6614-6621.	3.3	4
10	A Memory-based SO(3) Parameterization: Theory and Application to 6D Impedance Control with Radially Unbounded Potential Function. , 2022, , .		1
11	Online Learning of Centroidal Angular Momentum towards Enhancing DCM-based Locomotion. , 2022, , .		5
12	A Detumbling Strategy for an Orbital Manipulator in the Post-Grasp Phase. , 2022, , .		0
13	Planning Natural Locomotion for Articulated Soft Quadrupeds. , 2022, , .		2
14	Robust Stabilization of Elastic Joint Robots by ESP and PID Control: Theory and Experiments. IEEE Robotics and Automation Letters, 2022, 7, 8283-8290.	3.3	10
15	Ensuring Stable and Transparent High Stiffness Haptic Interaction Using Successive Force Augmentation with Time Domain Passivity Approach. Springer Proceedings in Advanced Robotics, 2021, , 263-273.	0.9	1
16	Damping Control. , 2021, , 1-10.		0
17	A Relative Dynamics Formulation for Hardware- in-the-Loop Simulation of On-Orbit Robotic Missions. IEEE Robotics and Automation Letters, 2021, 6, 3569-3576.	3.3	13
18	Elastic Structure Preserving Control for Compliant Robots Driven by Agonistic-Antagonistic Actuators (ESPaa). IEEE Robotics and Automation Letters, 2021, 6, 879-886.	3.3	11

#	ARTICLE	IF	CITATIONS
19	Whole-Body Teleoperation and Shared Control of Redundant Robots with Applications to Aerial Manipulation. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2021, 102, 1.	2.0	12
20	Stabilization of User-Defined Feedback Controllers in Teleoperation With Passive Coupling Reference. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 3513-3520.	3.3	5
21	Hierarchical Control of Redundant Aerial Manipulators with Enhanced Field of View. , 2021, , .		1
22	Model-Augmented Haptic Telemanipulation: Concept, Retrospective Overview, and Current Use Cases. <i>Frontiers in Robotics and AI</i> , 2021, 8, 611251.	2.0	5
23	Practical consequences of inertia shaping for interaction and tracking in robot control. <i>Control Engineering Practice</i> , 2021, 114, 104875.	3.2	13
24	A Compliant Partitioned Shared Control Strategy for an Orbital Robot. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 7317-7324.	3.3	2
25	Analyzing the Performance Limits of Articulated Soft Robots Based on the ESPI Framework: Applications to Damping and Impedance Control. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 7121-7128.	3.3	4
26	Adaptive Passivity-Based Multi-Task Tracking Control for Robotic Manipulators. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 7129-7136.	3.3	8
27	Compliant Floating-Base Control of Space Robots. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 7485-7492.	3.3	6
28	Online DCM Trajectory Adaptation for Push and Stumble Recovery during Humanoid Locomotion. , 2021, , .		5
29	A Finite-Gain Stable Multi-Agent Robot Control Framework with Adaptive Authority Allocation. , 2021, , .		1
30	Online Centroidal Angular Momentum Reference Generation and Motion Optimization for Humanoid Push Recovery. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 5689-5696.	3.3	16
31	Online Virtual Repellent Point Adaptation for Biped Walking using Iterative Learning Control. , 2021, , .		3
32	From Space to Earth – Relative-CoM-to-Foot (RCF) control yields high contact robustness. , 2021, , .		0
33	Control of a Class of Underactuated Systems by Successive Submanifold Stabilization. <i>IFAC-PapersOnLine</i> , 2021, 54, 352-358.	0.5	0
34	Elastic Structure Preserving Impedance Control of Bidirectional Antagonistic Variable Stiffness Actuation. , 2021, , .		2
35	Hierarchical Impedance-Based Tracking Control of Kinematically Redundant Robots. <i>IEEE Transactions on Robotics</i> , 2020, 36, 204-221.	7.3	54
36	Whole-Body Bilateral Teleoperation of a Redundant Aerial Manipulator. , 2020, , .		14

#	ARTICLE	IF	CITATIONS
37	Optimal Oscillation Damping Control of cable-Suspended Aerial Manipulator with a Single IMU Sensor. , 2020, , .		12
38	Closing the Force Loop to Enhance Transparency in Time-delayed Teleoperation. , 2020, , .		11
39	Adaptive Authority Allocation in Shared Control of Robots Using Bayesian Filters. , 2020, , .		11
40	A Geometric Controller for Fully-Actuated Robotic Capture of a Tumbling Target. , 2020, , .		5
41	Hierarchical Tracking Control With Arbitrary Task Dimensions: Application to Trajectory Tracking on Submanifolds. IEEE Robotics and Automation Letters, 2020, 5, 6153-6160.	3.3	6
42	The 6-DoF Implementation of the Energy-Reflection Based Time Domain Passivity Approach With Preservation of Physical Coupling Behavior. IEEE Robotics and Automation Letters, 2020, 5, 6756-6763.	3.3	10
43	Safe Interactions and Kinesthetic Feedback in High Performance Earth-To-Moon Teleoperation. , 2020, , .		18
44	Proxy-Based Approach for Position Synchronization of Delayed Robot Coupling Without Sacrificing Performance. IEEE Robotics and Automation Letters, 2020, 5, 6599-6606.	3.3	6
45	Multi-input multi-output fractional-order control of an underactuated continuum mechanism. International Journal of Advanced Robotic Systems, 2020, 17, 172988142096957.	1.3	1
46	Adaptive Air Density Estimation for Precise Tracking Control and Accurate External Wrench Observation for Flying Robots. IEEE Robotics and Automation Letters, 2020, 5, 1445-1452.	3.3	0
47	Coordination of thrusters, reaction wheels, and arm in orbital robots. Robotics and Autonomous Systems, 2020, 131, 103564.	3.0	4
48	Joint-Level Control of the DLR Lightweight Robot SARA. , 2020, , .		11
49	Machine Learning and Dynamic Whole Body Control for Underwater Manipulation. Intelligent Systems, Control and Automation: Science and Engineering, 2020, , 107-115.	0.3	0
50	FingerTac â€“ A Wearable Tactile Thimble for Mobile Haptic Augmented Reality Applications. Lecture Notes in Computer Science, 2020, , 286-298.	1.0	3
51	The EuRoC Platforms. Springer Tracts in Advanced Robotics, 2020, , 35-54.	0.3	0
52	Output Feedback Stabilization of an Orbital Robot. , 2020, , .		4
53	Passivity-based variable impedance control for redundant manipulators. IFAC-PapersOnLine, 2020, 53, 9865-9872.	0.5	5
54	Inertia-Decoupled Equations for Hardware-in-the-Loop Simulation of an Orbital Robot with External Forces. , 2020, , .		5

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55	Joint-Space Impedance Control Using Intrinsic Parameters of Compliant Actuators and Inner Sliding Mode Torque Loop. , 2019, 3, 1-6.		8
56	Development of SAM: cable-Suspended Aerial Manipulator. , 2019, , .		39
57	Experiments with Human-inspired Behaviors in a Humanoid Robot: Quasi-static Balancing using Toe-off Motion and Stretched Knees. , 2019, , .		8
58	Model-Free Friction Observers for Flexible Joint Robots With Torque Measurements. IEEE Transactions on Robotics, 2019, 35, 1508-1515.	7.3	39
59	Vibration Control for Manipulators on a Translationally Flexible Base. , 2019, , .		7
60	A Passivity-Based Nonlinear Admittance Control With Application to Powered Upper-Limb Control Under Unknown Environmental Interactions. IEEE/ASME Transactions on Mechatronics, 2019, 24, 1473-1484.	3.7	27
61	Six-DoF Pose Estimation for a Tendon-Driven Continuum Mechanism Without a Deformation Model. IEEE Robotics and Automation Letters, 2019, 4, 3425-3432.	3.3	9
62	Humanoid Robots in Aircraft Manufacturing: The Airbus Use Cases. IEEE Robotics and Automation Magazine, 2019, 26, 30-45.	2.2	57
63	Sliding Mode Momentum Observers for Estimation of External Torques and Joint Acceleration. , 2019, , .		33
64	Multi-Rate Tracking Control for a Space Robot on a Controlled Satellite: A Passivity-Based Strategy. IEEE Robotics and Automation Letters, 2019, 4, 1319-1326.	3.3	19
65	Torque-Based Balancing for a Humanoid Robot Performing High-Force Interaction Tasks. IEEE Robotics and Automation Letters, 2019, 4, 2023-2030.	3.3	21
66	Coordinated Control of Spacecraft's Attitude and End-Effector for Space Robots. IEEE Robotics and Automation Letters, 2019, 4, 2108-2115.	3.3	29
67	Multi-DoF Time Domain Passivity Approach Based Drift Compensation for Telemanipulation. , 2019, , .		9
68	Integration of Dual-Arm Manipulation in a Passivity Based Whole-Body Controller for Torque-Controlled Humanoid Robots. , 2019, , .		4
69	Dynamic Walking on Compliant and Uneven Terrain using DCM and Passivity-based Whole-body Control. , 2019, , .		32
70	Control of a soft robotic link using a fractional-order controller. , 2019, , 321-338.		0
71	Torque-Based Balancing. , 2019, , 1361-1386.		1
72	Mechanism Design of DLR Humanoid Robots. , 2019, , 637-662.		2

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73	A Nonlinear Observer for Free-Floating Target Motion using only Pose Measurements. , 2019, , .		10
74	Repetitive Jumping Control for Biped Robots via Force Distribution and Energy Regulation. Springer Proceedings in Advanced Robotics, 2019, , 29-45.	0.9	1
75	A Method to Identify the Nonlinear Stiffness Characteristics of an Elastic Continuum Mechanism. IEEE Robotics and Automation Letters, 2018, 3, 1450-1457.	3.3	11
76	A Stabilizing Controller for Regulation of UAV With Manipulator. IEEE Robotics and Automation Letters, 2018, 3, 1719-1726.	3.3	36
77	The Hierarchical Operational Space Formulation: Stability Analysis for the Regulation Case. IEEE Robotics and Automation Letters, 2018, 3, 1120-1127.	3.3	33
78	Elastic Structure Preserving (ESP) Control for Compliantly Actuated Robots. IEEE Transactions on Robotics, 2018, 34, 317-335.	7.3	59
79	Robust Motion Control of a Soft Robotic System Using Fractional Order Control. Mechanisms and Machine Science, 2018, , 147-155.	0.3	8
80	DCM-Based Gait Generation for Walking on Moving Support Surfaces. , 2018, , .		6
81	Humanoid Teleoperation Using Task-Relevant Haptic Feedback. , 2018, , .		24
82	Reduced Models for the Static Simulation of an Elastic Continuum Mechanism. IFAC-PapersOnLine, 2018, 51, 403-408.	0.5	9
83	Passive Energy-based Control via Energy Tanks and Release Valve for Limit Cycle and Compliance Control. IFAC-PapersOnLine, 2018, 51, 73-78.	0.5	12
84	Robust H ∞ control of a tendon-driven elastic continuum mechanism via a systematic description of nonlinearities. IFAC-PapersOnLine, 2018, 51, 386-392.	0.5	3
85	Non-Linear Local Force Feedback Control for Haptic Interfaces. IFAC-PapersOnLine, 2018, 51, 486-492.	0.5	8
86	Tracking Control with Robotic Systems for a Moving Target: A Vector Lyapunov Function Approach. IFAC-PapersOnLine, 2018, 51, 471-478.	0.5	0
87	Oscillation Damping Control of Pendulum-like Manipulation Platform using Moving Masses. IFAC-PapersOnLine, 2018, 51, 465-470.	0.5	11
88	Structure preserving Multi-Contact Balance Control for Series-Elastic and Visco-Elastic Humanoid Robots. , 2018, , .		2
89	Passive Compliance Control of Aerial Manipulators. , 2018, , .		11
90	Elastic Structure Preserving Impedance (ES ∞)Control for Compliantly Actuated Robots. , 2018, , .		10

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91	Task-space Tracking Control for Underactuated Aerial Manipulators. , 2018, , .		9
92	Visco-Elastic Structure Preserving Impedance (VESİ€) Control for Compliantly Actuated Robots. , 2018, , .		4
93	An Energy-Based Approach for the Multi-Rate Control of a Manipulator on an Actuated Base. , 2018, , .		11
94	Whole-Body Impedance Control for a Planetary Rover with Robotic Arm: Theory, Control Design, and Experimental Validation. , 2018, , .		8
95	Torque-Based Dynamic Walking - A Long Way from Simulation to Experiment. , 2018, , .		27
96	Extended Predictive Model-Mediated Teleoperation of Mobile Robots through Multilateral Control. , 2018, , .		7
97	Passivity Analysis and Control of Humanoid Robots on Movable Ground. IEEE Robotics and Automation Letters, 2018, 3, 3457-3464.	3.3	14
98	Convex Properties of Center-of-Mass Trajectories for Locomotion Based on Divergent Component of Motion. IEEE Robotics and Automation Letters, 2018, 3, 3449-3456.	3.3	17
99	Passive Hierarchical Impedance Control Via Energy Tanks. IEEE Robotics and Automation Letters, 2017, 2, 522-529.	3.3	32
100	External Wrench Estimation, Collision Detection, and Reflex Reaction for Flying Robots. IEEE Transactions on Robotics, 2017, 33, 1467-1482.	7.3	76
101	Enhancing joint torque control of series elastic actuators with physical damping. , 2017, , .		16
102	Passivity-based control of underactuated biped robots within hybrid zero dynamics approach. , 2017, , .		9
103	Dynamic multi-contact transitions for humanoid robots using Divergent Component of Motion. , 2017, , .		11
104	Energy Based Limit Cycle Control of Elastically Actuated Robots. IEEE Transactions on Automatic Control, 2017, 62, 2490-2497.	3.6	19
105	Continuous Legged Locomotion Planning. IEEE Transactions on Robotics, 2017, 33, 234-239.	7.3	12
106	Improving the performance of biomechanically safe velocity control for redundant robots through reflected mass minimization. , 2017, , .		19
107	Multi-contact balancing of humanoid robots in confined spaces: Utilizing knee contacts. , 2017, , .		27
108	Smooth trajectory generation and push-recovery based on Divergent Component of Motion. , 2017, , .		33

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109	Enabling robot assisted landing of heavy UAV rotorcraft via combined control and workload sharing. , 2017, , .		1
110	Generation of locomotion trajectories for series elastic and viscoelastic bipedal robots. , 2017, , .		9
111	Optimal and robust walking using intrinsic properties of a series-elastic robot. , 2017, , .		8
112	Whole-Body Control [TC Spotlight]. IEEE Robotics and Automation Magazine, 2017, 24, 12-14.	2.2	1
113	Position control of an underactuated continuum mechanism using a reduced nonlinear model. , 2017, , .		12
114	Mechanisms and Design of DLR Humanoid Robots. , 2017, , 1-26.		9
115	Torque-Based Balancing. , 2017, , 1-26.		2
116	A passivity-based approach for trajectory tracking and link-side damping of compliantly actuated robots. , 2016, , .		19
117	Dynamics and control of a free-floating space robot in presence of nonzero linear and angular momenta. , 2016, , .		21
118	The DLR C-runner: Concept, design and experiments. , 2016, , .		18
119	Exploiting ankle torque for orbital stabilization in biped robots; a hybrid zero dynamics approach. , 2016, , .		1
120	A passivity-based admittance control design using feedback interconnections. , 2016, , .		9
121	A passivity-based controller for motion tracking and damping assignment for compliantly actuated robots. , 2016, , .		16
122	Limbed Systems. Springer Handbooks, 2016, , 419-442.	0.3	2
123	Biologically Inspired Deadbeat Control for Running: From Human Analysis to Humanoid Control and Back. IEEE Transactions on Robotics, 2016, 32, 854-867.	7.3	17
124	Passivity-based whole-body balancing for torque-controlled humanoid robots in multi-contact scenarios. International Journal of Robotics Research, 2016, 35, 1522-1543.	5.8	143
125	Maximal input limits for independent SISO control in modal space under consideration of actuator constraints. , 2016, , .		1
126	Learning and Generalization of Compensative Zero-Moment Point Trajectory for Biped Walking. IEEE Transactions on Robotics, 2016, 32, 717-725.	7.3	20

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127	Passivation of Projection-Based Null Space Compliance Control Via Energy Tanks. IEEE Robotics and Automation Letters, 2016, 1, 184-191.	3.3	28
128	Good Posture, Good Balance: Comparison of Bioinspired and Model-Based Approaches for Posture Control of Humanoid Robots. IEEE Robotics and Automation Magazine, 2016, 23, 22-33.	2.2	45
129	An Approach to Combine Balancing with Hierarchical Whole-Body Control for Legged Humanoid Robots. IEEE Robotics and Automation Letters, 2016, 1, 700-707.	3.3	53
130	Limit Cycle Control Using Energy Function Regulation With Friction Compensation. IEEE Robotics and Automation Letters, 2016, 1, 90-97.	3.3	6
131	Whole-body impedance control of wheeled mobile manipulators. Autonomous Robots, 2016, 40, 505-517.	3.2	68
132	Integrating Measured Force Feedback in Passive Multilateral Teleoperation. Lecture Notes in Computer Science, 2016, , 316-326.	1.0	6
133	STEPS TOWARDS ENERGY EFFICIENCY IN ELASTICALLY ACTUATED ROBOTS. , 2016, , 780-782.		0
134	On the regulation of the energy of elastic joint robots: Excitation and damping of oscillations. , 2015, , .		6
135	Biologically inspired deadbeat control for running on 3D stepping stones. , 2015, , .		8
136	Biologically Inspired Dead-beat controller for bipedal running in 3D. , 2015, , .		4
137	From Torque-Controlled to Intrinsically Compliant Humanoid Robots. Mechanical Engineering, 2015, 137, S7-S11.	0.0	1
138	An adaptive compliant multi-finger approach-to-grasp strategy for objects with position uncertainties. , 2015, , .		15
139	A Hybrid System Framework for Unified Impedance and Admittance Control. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 78, 359-375.	2.0	84
140	An overview of null space projections for redundant, torque-controlled robots. International Journal of Robotics Research, 2015, 34, 1385-1400.	5.8	139
141	Three-Dimensional Bipedal Walking Control Based on Divergent Component of Motion. IEEE Transactions on Robotics, 2015, 31, 355-368.	7.3	258
142	Prioritized multi-task compliance control of redundant manipulators. Automatica, 2015, 53, 416-423.	3.0	114
143	On the inertially decoupled structure of the floating base robot dynamics. IFAC-PapersOnLine, 2015, 48, 322-327.	0.5	31
144	A Compliant Multi-finger Grasp Approach Control Strategy Based on the Virtual Spring Framework. Lecture Notes in Computer Science, 2015, , 381-395.	1.0	3

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145	Online iterative learning control of zero-moment point for biped walking stabilization. , 2015, , .		1
146	A Closed-Form Approach to Determine the Base Inertial Parameters of Complex Structured Robotic Systems. IFAC-PapersOnLine, 2015, 48, 316-321.	0.5	4
147	Dynamic parameters identification of a humanoid robot using joint torque sensors and/or contact forces. , 2014, , .		13
148	Overview of the torque-controlled humanoid robot TORO. , 2014, , .		199
149	Trajectory generation for continuous leg forces during double support and heel-to-toe shift based on divergent component of motion. , 2014, , .		43
150	Online human walking imitation in task and joint space based on quadratic programming. , 2014, , .		26
151	A model-free approach to vibration suppression for intrinsically elastic robots. , 2014, , .		16
152	Torque-based multi-task and balancing control for humanoid robots. , 2014, , .		1
153	Trajectory optimization for walking robots with series elastic actuators. , 2014, , .		7
154	Posture and balance control for humanoid robots in multi-contact scenarios based on Model Predictive Control. , 2014, , .		47
155	Control applications of TORO — A Torque controlled humanoid robot. , 2014, , .		20
156	Humanoid compliant whole arm dexterous manipulation: Control design and experiments. , 2014, , .		6
157	Orbital stabilization of mechanical systems through semidefinite Lyapunov functions. , 2013, , .		15
158	Multi-objective compliance control of redundant manipulators: Hierarchy, control, and stability. , 2013, , .		41
159	On the closed form computation of the dynamic matrices and their differentiations. , 2013, , .		38
160	Three-dimensional bipedal walking control using Divergent Component of Motion. , 2013, , .		100
161	Kinesthetic teaching of humanoid motion based on whole-body compliance control with interaction-aware balancing. , 2013, , .		23
162	Modal limit cycle control for variable stiffness actuated robots. , 2013, , .		14

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163	Optimization-based generation and experimental validation of optimal walking trajectories for biped robots. , 2012, , .		16
164	Stabilization of the Capture Point Dynamics for Bipedal Walking based on Model Predictive Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 165-171.	0.4	55
165	Gangstabilisierung humanoider Roboter mittels Capture Point Regelung. Automatisierungstechnik, 2012, 60, 692-704.	0.4	3
166	Incremental learning of full body motion primitives and their sequencing through human motion observation. International Journal of Robotics Research, 2012, 31, 330-345.	5.8	155
167	Kinematic optimization and online adaptation of swing foot trajectory for biped locomotion. , 2012, , .		3
168	Walking control of fully actuated robots based on the Bipedal SLIP model. , 2012, , .		64
169	Integration of vertical COM motion and angular momentum in an extended Capture Point tracking controller for bipedal walking. , 2012, , .		47
170	Comparison of object-level grasp controllers for dynamic dexterous manipulation. International Journal of Robotics Research, 2012, 31, 3-23.	5.8	84
171	Hardware and Control Concept for an Experimental Bipedal Robot with Joint Torque Sensors. Journal of the Robotics Society of Japan, 2012, 30, 378-382.	0.0	14
172	Dual-Arm Manipulation. Springer Tracts in Advanced Robotics, 2012, , 353-366.	0.3	14
173	Bipedal walking control based on Capture Point dynamics. , 2011, , .		110
174	Anthropomorphic Soft Robotics " From Torque Control to Variable Intrinsic Compliance. Springer Tracts in Advanced Robotics, 2011, , 185-207.	0.3	34
175	Posture and balance control for biped robots based on contact force optimization. , 2011, , .		184
176	Physical human robot interaction in imitation learning. , 2011, , .		8
177	Bipedal walking control based on Capture Point dynamics. , 2011, , .		133
178	Incremental kinesthetic teaching of motion primitives using the motion refinement tube. Autonomous Robots, 2011, 31, 115-131.	3.2	143
179	Subspace-oriented energy distribution for the Time Domain Passivity Approach. , 2011, , .		19
180	Subspace-oriented energy distribution for the Time Domain Passivity Approach. , 2011, , .		4

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181	Mimetic Communication Model with Compliant Physical Contact in Human-Humanoid Interaction. International Journal of Robotics Research, 2010, 29, 1684-1704.	5.8	71
182	DLRs zweihÄndiger Humanoide Justin: Systementwurf, Integration und Regelung. Automatisierungstechnik, 2010, 58, .	0.4	4
183	Incremental motion primitive learning by physical coaching using impedance control. , 2010, , .		4
184	Immersion and invariance control for an antagonistic joint with nonlinear mechanical stiffness. , 2010, , .		18
185	Development of a biped robot with torque controlled joints. , 2010, , .		55
186	Unified Impedance and Admittance Control. , 2010, , .		189
187	Base force/torque sensing for position based Cartesian impedance control. , 2009, , .		18
188	Mimetic communication with impedance control for physical human-robot interaction. , 2009, , .		5
189	Admittance Control using a Base Force/Torque Sensor.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 467-472.	0.4	12
190	Soft robotics. IEEE Robotics and Automation Magazine, 2008, 15, 20-30.	2.2	431
191	Impedance control for variable stiffness mechanisms with nonlinear joint coupling. , 2008, , .		35
192	On the Passivity-Based Impedance Control of Flexible Joint Robots. IEEE Transactions on Robotics, 2008, 24, 416-429.	7.3	351
193	Motion capture based human motion recognition and imitation by direct marker control. , 2008, , .		84
194	Incremental learning of full body motion primitives for humanoid robots. , 2008, , .		26
195	Employing wave variables for coordinated control of robots with distributed control architecture. , 2008, , .		8
196	Resolving the problem of non-integrability of nullspace velocities for compliance control of redundant manipulators by using semi-definite Lyapunov functions. , 2008, , .		35
197	Analysis and experimental evaluation of the Intrinsically Passive Controller (IPC) for multifingered hands. , 2008, , .		25
198	Cartesian Impedance Control: The Rigid Body Case. Springer Tracts in Advanced Robotics, 2008, , 29-44.	0.3	13

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199	The Singular Perturbation Approach. Springer Tracts in Advanced Robotics, 2008, , 65-75.	0.3	1
200	Controller Comparison and Conclusions. Springer Tracts in Advanced Robotics, 2008, , 165-167.	0.3	0
201	Modeling of Flexible Joint Robots. Springer Tracts in Advanced Robotics, 2008, , 13-27.	0.3	2
202	Nullspace Stiffness. Springer Tracts in Advanced Robotics, 2008, , 45-63.	0.3	0
203	Controller Design Based on the Cascaded Structure. Springer Tracts in Advanced Robotics, 2008, , 77-92.	0.3	0
204	A Passivity Based Approach. Springer Tracts in Advanced Robotics, 2008, , 93-121.	0.3	0
205	Impedance Behaviors for Two-handed Manipulation: Design and Experiments. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	54
206	AUTONOMOUS OPENING OF A DOOR WITH A MOBILE MANIPULATOR: A CASE STUDY. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 349-354.	0.4	9
207	The skeleton algorithm for self-collision avoidance of a humanoid manipulator. , 2007, , .		45
208	A Unified Passivity-based Control Framework for Position, Torque and Impedance Control of Flexible Joint Robots. International Journal of Robotics Research, 2007, 26, 23-39.	5.8	654
209	A humanoid upper body system for two-handed manipulation. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	38
210	A Unified Passivity Based Control Framework for Position, Torque and Impedance Control of Flexible Joint Robots. , 2007, , 5-21.		23
211	A Cartesian Compliance Controller for a Manipulator Mounted on a Flexible Structure. , 2006, , .		15
212	Passivity-based Object-Level Impedance Control for a Multifingered Hand. , 2006, , .		61
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