Christine Chevallereau

List of Publications by Year
in descending order

64 papers	1,834 citations	516215 16 h-index	395343 33 g-index
67 all docs	67 docs citations	67 times ranked	1044 citing authors

#	Article	IF	Citations
1	Models, feedback control, and open problems of 3D bipedal robotic walking. Automatica, 2014, 50, 1955-1988.	3.0	236
2	Finite Time Stabilization of a Perturbed Double Integratorâ€"Part I: Continuous Sliding Mode-Based Output Feedback Synthesis. IEEE Transactions on Automatic Control, 2011, 56, 614-618.	3.6	126
3	Stable Bipedal Walking With Foot Rotation Through Direct Regulation of the Zero Moment Point. IEEE Transactions on Robotics, 2008, 24, 390-401.	7.3	84
4	3D Bipedal Robotic Walking: Models, Feedback Control, and Open Problems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 505-532.	0.4	74
5	Human-Like Walking: Optimal Motion of a Bipedal Robot With Toe-Rotation Motion. IEEE/ASME Transactions on Mechatronics, 2011, 16, 310-320.	3.7	66
6	Tracking a joint path for the walk of an underactuated biped. Robotica, 2004, 22, 15-28.	1.3	59
7	Design of a walking cyclic gait with single support phases and impacts for the locomotor system of a thirteen-link 3D biped using the parametric optimization. Multibody System Dynamics, 2010, 23, 33-56.	1.7	51
8	From stable walking to steering of a 3D bipedal robot with passive point feet. Robotica, 2012, 30, 1119-1130.	1.3	48
9	Underwater Reflex Navigation in Confined Environment Based on Electric Sense. IEEE Transactions on Robotics, 2013, 29, 945-956.	7.3	40
10	Underwater navigation based on passive electric sense: New perspectives for underwater docking. International Journal of Robotics Research, 2015, 34, 1228-1250.	5.8	39
11	Online adaptation of reference trajectories for the control of walking systems. Robotics and Autonomous Systems, 2006, 54, 559-566.	3.0	35
12	Environment reconstruction and navigation with electric sense based on a Kalman filter. International Journal of Robotics Research, 2013, 32, 172-188.	5.8	35
13	Underwater robot navigation around a sphere using electrolocation sense and Kalman filter. , 2010, , .		26
14	Symmetry in legged locomotion: a new method for designing stable periodic gaits. Autonomous Robots, 2017, 41, 1119-1142.	3.2	25
15	HZD-based control of a five-link underactuated 3D bipedal robot. , 2008, , .		20
16	Stability analysis and time-varying walking control for an under-actuated planar biped robot. Robotics and Autonomous Systems, 2011, 59, 444-456.	3.0	19
17	Numerical and experimental study of the virtual quadrupedal walking robot-semiquad. Multibody System Dynamics, 2006, 16, 1-20.	1.7	18
18	Distribution of Forces Between Synergistics and Antagonistics Muscles Using an Optimization Criterion Depending on Muscle Contraction Behavior. Journal of Biomechanical Engineering, 2010, 132, 041009.	0.6	17

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19	Electric Sensor-Based Control of Underwater Robot Groups. IEEE Transactions on Robotics, 2014, 30, 604-618.	7.3	17
20	Walking and steering control for a 3D biped robot considering ground contact and stability. Robotics and Autonomous Systems, 2012, 60, 962-977.	3.0	16
21	Arm swing effects on walking bipedal gaits composed of impact, single and double support phases. Robotics and Autonomous Systems, 2015, 66, 104-115.	3.0	15
22	Underwater electro-navigation in the dark. , 2012, , .		13
23	Self-synchronization and self-stabilization of 3D bipedal walking gaits. Robotics and Autonomous Systems, 2018, 100, 43-60.	3.0	12
24	An essential model for generating walking motions for humanoid robots. Robotics and Autonomous Systems, 2019, 112, 229-243.	3.0	12
25	Restricted discrete invariance and self-synchronization for stable walking of bipedal robots. , 2015, , .		11
26	Stable walking control of a 3D biped robot with foot rotation. Robotica, 2014, 32, 551-570.	1.3	10
27	Human to humanoid motion conversion for dual-arm manipulation tasks. Robotica, 2018, 36, 1167-1187.	1.3	10
28	Steering of a 3D bipedal robot with an underactuated ankle. , 2010, , .		9
29	Finite time tracking of a fully actuated biped robot with pre-specified settling time: A second order sliding mode synthesis. , 2014, , .		9
30	Orbital stabilization of an underactuated bipedal gait via nonlinear $${{\mathcal H}}_{\infty}$$ H ∞ -control using measurement feedback. Autonomous Robots, 2017, 41, 1277-1295.	3.2	9
31	Dynamic motion imitation of two articulated systems using nonlinear time scaling of joint trajectories. , 2012, , .		8
32	Virtual Constraints and Hybrid Zero Dynamics for Realizing Underactuated Bipedal Locomotion. , 2017, , 1-31.		8
33	ESTIMATION OF THE TRUNK ATTITUDE OF A HUMANOID BY DATA FUSION OF INERTIAL SENSORS AND JOINT ENCODERS. , 2013, , .		7
34	Self-stabilization of 3D walking via vertical oscillations of the hip. , 2015, , .		7
35	Grounding humanoid visually guided walking: From action-independent to action-oriented knowledge. Information Sciences, 2016, 352-353, 79-97.	4.0	7
36	Self-Synchronization and Self-Stabilization of Walking Gaits Modeled by the Three-Dimensional LIP Model. IEEE Robotics and Automation Letters, 2018, 3, 3332-3339.	3.3	7

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37	Identification and Control of a 3-X Cable-Driven Manipulator Inspired From the Birdâ€™s Neck. Journal of Mechanisms and Robotics, 2022, 14, .	1.5	7
38	A penalty-based approach for contact forces computation in bipedal robots. , 2009, , .		6
39	Dynamic Analysis and Control of an Antagonistically Actuated Tensegrity Mechanism. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2019, , 481-490.	0.3	6
40	Dynamic modeling and control of a tensegrity manipulator mimicking a bird neck. Mechanisms and Machine Science, 2019, , 2087-2097.	0.3	5
41	Walking Stability of a Variable Length Inverted Pendulum Controlled with Virtual Constraints. International Journal of Humanoid Robotics, 2019, 16, 1950040.	0.6	5
42	A new control law for a 3D biped robot based on regulation of the zero moment point and joint path. , 2010, , .		4
43	Continuous second order sliding mode based robust finite time tracking of a fully actuated biped robot. , 2014, , .		4
44	Optimal Design of Tensegrity Mechanisms Used in a Bird Neck Model. Mechanisms and Machine Science, 2019, , 365-375.	0.3	4
45	Virtual Constraints and Hybrid Zero Dynamics for Realizing Underactuated Bipedal Locomotion. , 2019, , 1045-1075.		4
46	Preliminary Survey of Backdrivable Linear Actuators for Humanoid Robots. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2019, , 304-313.	0.3	4
47	Safety in a Human Robot Interactive: Application to Haptic Perception. Lecture Notes in Computer Science, 2020, , 562-574.	1.0	4
48	Virtual quadruped: Mechanical design, control, simulation, and experimentation. Journal of Mathematical Sciences, 2007, 147, 6552-6568.	0.1	3
49	Choice of output for time-variant walking control for a five-link underactuated planar biped robot. , 2009, , .		3
50	Arms Swing Effects on a Walking Planar Biped. , 2012, , .		3
51	Toward optimal mapping of human dual-arm motion to humanoid motion for tasks involving contact with the environment. International Journal of Advanced Robotic Systems, 2018, 15, 172988141875737.	1.3	3
52	Stability of time-varying control for an underactuated biped robot based on choice of controlled outputs. , 2010, , .		2
53	Nonlinear orbital ℋ<inf>∞</inf>-stabilization of underactuated mechanical systems with unilateral constraints. , 2015, , .		2
54	Robust stabilization of a fully actuated 3D bipedal locomotion via nonlinear H<inf>â^ž</inf>-control under unilateral constraints. , 2016, , .		2

#	ARTICLE	IF	CITATIONS
55	Modelling and Trajectory Planning for a Four Legged Walking Robot with High Payload. Lecture Notes in Computer Science, 2012, , 552-561.	1.0	2
56	Computational morphology for a soft micro air vehicle in hovering flight. , 2014, , .		1
57	A Top-Down and Bottom-Up Visual Attention Model for Humanoid Object Approaching and Obstacle Avoidance. , 2016, , .		1
58	Morphological self stabilization of locomotion gaits: illustration on a few examples from bio-inspired locomotion. Bioinspiration and Biomimetics, 2017, 12, 046006.	1.5	1
59	ON PASSIVE MOTION OF THE ARMS FOR A WALKING PLANAR BIPED. , 2012, , 335-342.		1
60	Motion Strategies for a Cobot in a Context of Intermittent Haptic Interface. Journal of Mechanisms and Robotics, 2022, 14, .	1.5	1
61	Kinematic andÂStatic Analysis ofÂaÂCable-Driven 2-X Tensegrity Manipulator forÂTwo Actuation Strategies. Springer Proceedings in Advanced Robotics, 2022, , 149-159.	0.9	1
62	Effect of Circular Arc Feet on a Control Law for a Biped. , 0, , .		0
63	Study of the Walking Efficiency of a Human with a Cane. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2019, , 370-379.	0.3	0
64	Design and Optimization of a Planar Biped Leg Based on Direct Drive Linear Actuators. Mathematical Problems in Engineering, 2022, 2022, 1-15.	0.6	0