

# Renaud Ronsse

## List of Publications by Year in descending order

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Version: 2024-02-01

62  
papers

1,507  
citations

430442

18  
h-index

395343

33  
g-index

63  
all docs

63  
docs citations

63  
times ranked

1446  
citing authors

#	ARTICLE	IF	CITATIONS
1	Oscillator-based assistance of cyclical movements: model-based and model-free approaches. <i>Medical and Biological Engineering and Computing</i> , 2011, 49, 1173-1185.	1.6	159
2	Motor Learning with Augmented Feedback: Modality-Dependent Behavioral and Neural Consequences. <i>Cerebral Cortex</i> , 2011, 21, 1283-1294.	1.6	142
3	Human-Robot Synchrony: Flexible Assistance Using Adaptive Oscillators. <i>IEEE Transactions on Biomedical Engineering</i> , 2011, 58, 1001-1012.	2.5	129
4	Sensing Pressure Distribution on a Lower-Limb Exoskeleton Physical Human-Machine Interface. <i>Sensors</i> , 2011, 11, 207-227.	2.1	96
5	An oscillator-based smooth real-time estimate of gait phase for wearable robotics. <i>Autonomous Robots</i> , 2017, 41, 759-774.	3.2	95
6	Motor learning-induced changes in functional brain connectivity as revealed by means of graph-theoretical network analysis. <i>NeuroImage</i> , 2012, 61, 633-650.	2.1	65
7	Real-Time Estimate of Velocity and Acceleration of Quasi-Periodic Signals Using Adaptive Oscillators. <i>IEEE Transactions on Robotics</i> , 2013, 29, 783-791.	7.3	56
8	Rhythmic Feedback Control of a Blind Planar Juggler. <i>IEEE Transactions on Robotics</i> , 2007, 23, 790-802.	7.3	50
9	A Computational Model for Rhythmic and Discrete Movements in Uni- and Bimanual Coordination. <i>Neural Computation</i> , 2009, 21, 1335-1370.	1.3	46
10	Biped gait controller for large speed variations, combining reflexes and a central pattern generator in a neuromuscular model. , 2015, , .		46
11	Walking Assistance Using Artificial Primitives: A Novel Bioinspired Framework Using Motor Primitives for Locomotion Assistance Through a Wearable Cooperative Exoskeleton. <i>IEEE Robotics and Automation Magazine</i> , 2016, 23, 83-95.	2.2	45
12	Adaptive oscillators with human-in-the-loop: Proof of concept for assistance and rehabilitation. , 2010, , .		43
13	Altered Gravity Highlights Central Pattern Generator Mechanisms. <i>Journal of Neurophysiology</i> , 2008, 100, 2819-2824.	0.9	40
14	Bio-inspired controller achieving forward speed modulation with a 3D bipedal walker. <i>International Journal of Robotics Research</i> , 2018, 37, 168-196.	5.8	38
15	Optimal Control of a Hybrid Rhythmic-Discrete Task: The Bouncing Ball Revisited. <i>Journal of Neurophysiology</i> , 2010, 103, 2482-2493.	0.9	34
16	Oscillator-based walking assistance: A model-free approach. , 2011, 2011, 5975352.		34
17	Experimental Validation of Motor Primitive-Based Control for Leg Exoskeletons during Continuous Multi-Locomotion Tasks. <i>Frontiers in Neurobotics</i> , 2017, 11, 15.	1.6	34
18	Multisensory Integration in Dynamical Behaviors: Maximum Likelihood Estimation across Bimanual Skill Learning. <i>Journal of Neuroscience</i> , 2009, 29, 8419-8428.	1.7	32

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19	A review of terrain detection systems for applications in locomotion assistance. <i>Robotics and Autonomous Systems</i> , 2020, 133, 103628.	3.0	26
20	Computation of gaze orientation under unrestrained head movements. <i>Journal of Neuroscience Methods</i> , 2007, 159, 158-169.	1.3	21
21	Variable Stiffness Actuator applied to an active ankle prosthesis: Principle, energy-efficiency, and control. , 2012, , .		19
22	Rhythmic arm movements are less affected than discrete ones after a stroke. <i>Experimental Brain Research</i> , 2016, 234, 1403-1417.	0.7	18
23	Bouncing between Model and Data: Stability, Passivity, and Optimality in Hybrid Dynamics. <i>Journal of Motor Behavior</i> , 2010, 42, 389-399.	0.5	15
24	Torque control of an active elastic transfemoral prosthesis via quasi-static modelling. <i>Robotics and Autonomous Systems</i> , 2018, 107, 100-115.	3.0	15
25	Simulations of propelling and energy harvesting articulated bodies via vortex particle-mesh methods. <i>Journal of Computational Physics</i> , 2019, 392, 34-55.	1.9	15
26	Real-time estimate of period derivatives using adaptive oscillators: Application to impedance-based walking assistance. , 2012, , .		14
27	Robotics and neuroscience: A rhythmic interaction. <i>Neural Networks</i> , 2008, 21, 577-583.	3.3	12
28	Coordination of complex bimanual multijoint movements under increasing cycling frequencies: The prevalence of mirror-image and translational symmetry. <i>Acta Psychologica</i> , 2009, 130, 183-195.	0.7	12
29	Performance-based robotic assistance during rhythmic arm exercises. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2016, 13, 82.	2.4	12
30	Control of bimanual rhythmic movements: trading efficiency for robustness depending on the context. <i>Experimental Brain Research</i> , 2008, 187, 193-205.	0.7	11
31	Novel infinitely Variable Transmission allowing efficient transmission ratio variations at rest. , 2015, , .		11
32	Neuromuscular model achieving speed control and steering with a 3D bipedal walker. <i>Autonomous Robots</i> , 2019, 43, 1537-1554.	3.2	11
33	Assistance using adaptive oscillators: Robustness to errors in the identification of the limb parameters. , 2011, 2011, 5975351.		10
34	Adaptive position anticipation in a support robot for overground gait training enhances transparency. , 2013, 2013, 6650483.		10
35	Feedback Control of Impact Dynamics: the Bouncing Ball Revisited. , 2006, , .		9
36	Experimental validation of a bio-inspired controller for dynamic walking with a humanoid robot. , 2015, , .		8

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37	Multi-physics modelling of a compliant humanoid robot. <i>Multibody System Dynamics</i> , 2017, 39, 95-114.	1.7	8
38	Model coupling biomechanics and fluid dynamics for the simulation of controlled flapping flight. <i>Bioinspiration and Biomimetics</i> , 2021, 16, 026023.	1.5	8
39	Stability and Sensitivity Analysis of Bird Flapping Flight. <i>Journal of Nonlinear Science</i> , 2021, 31, 1.	1.0	7
40	Bio-inspired balance controller for a humanoid robot. , 2016, , .		6
41	Rhythmic robotic training enhances motor skills of both rhythmic and discrete upper-limb movements after stroke: a longitudinal pilot study. <i>International Journal of Rehabilitation Research</i> , 2019, 42, 46-55.	0.7	6
42	Compliant Control of a Transfemoral Prosthesis by combining Feed-Forward and Feedback. , 2020, , .		6
43	Robotran-YARP Interface: A Framework for Real-Time Controller Developments Based on Multibody Dynamics Simulations. <i>Computational Methods in Applied Sciences (Springer)</i> , 2016, , 147-164.	0.1	5
44	Motor primitive-based control for lower-limb exoskeletons. , 2016, , .		4
45	Using Depth Vision for Terrain Detection during Active Locomotion. , 2021, , .		4
46	Numerical Simulations and Development of Drafting Strategies for Robotic Swimmers at Low Reynolds Number. , 2018, , .		3
47	Continuous Modulation of Step Height and Length in Bipedal Walking, Combining Reflexes and a Central Pattern Generator. , 2018, , .		3
48	Extraction of simple monophasic motor primitives towards bio-inspired locomotion assistance. , 2019, , .		3
49	Co-evolution of Morphology and Control of a Wearable Robot for Human Locomotion Assistance Exploiting Variable Impedance Actuators. <i>Procedia Computer Science</i> , 2011, 7, 223-225.	1.2	2
50	Feed-forward support of human walking. , 2012, , .		2
51	Gaze stabilization of a humanoid robot based on virtual linkage. , 2016, , .		2
52	Predicting the effects of oscillator-based assistance on stride-to-stride variability of Parkinsonian walkers. , 2022, , .		2
53	Multimodal gaze stabilization of a humanoid robot based on reafferences. , 2017, , .		1
54	Augmented Neuromuscular Gait Controller Enables Real-time Tracking of Bipedal Running Speed. , 2018, , .		1

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55	Online Learning of the Dynamical Internal Model of Transfemoral Prosthesis for Enhancing Compliance. IEEE Robotics and Automation Letters, 2021, 6, 6156-6163.	3.3	1
56	Real-time smoothness-based assistance during rhythmic arm movements. , 2016, , .		0
57	Quasi-Static Modelling of a Redundant Knee Prosthesis. , 2018, , .		0
58	Trajectory Planning of a Bio-inspired Walker in 3D Cluttered Environments using Internal Models. , 2020, , .		0
59	Compliant Control of a Transfemoral Prosthesis Combining Predictive Learning and Primitive-Based Reference Trajectories. Biosystems and Biorobotics, 2022, , 89-93.	0.2	0
60	A New Terrain Recognition Approach for Predictive Control of Assistive Devices Using Depth Vision. Biosystems and Biorobotics, 2022, , 443-447.	0.2	0
61	Adaptive Oscillators as Template for Modeling and Assisting Rhythmic Movements. Biosystems and Biorobotics, 2022, , 271-275.	0.2	0
62	Bio-inspired Walking: From Humanoids to Assistive Devices. Biosystems and Biorobotics, 2019, , 271-275.	0.2	0