Tetsuya Iwasaki

List of Publications by Year
in descending order

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49 papers	454 citations	759055 12 h-index	752573 20 g-index
49 all docs	49 docs citations	49 times ranked	270 citing authors

#	Article	IF	Citations
1	Multivariable harmonic balance for central pattern generators. Automatica, 2008, 44, 3061-3069.	3.0	64
2	Stability Analysis of Systems With Generalized Frequency Variables. IEEE Transactions on Automatic Control, 2014, 59, 313-326.	3.6	42
3	Optimal Gaits for Mechanical Rectifier Systems. IEEE Transactions on Automatic Control, 2011, 56, 59-71.	3.6	40
4	Biological clockwork underlying adaptive rhythmic movements. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 978-983.	3.3	32
5	Entrainment to Natural Oscillations via Uncoupled Central Pattern Generators. IEEE Transactions on Automatic Control, 2011, 56, 1075-1089.	3.6	27
6	Circulant Synthesis of Central Pattern Generators With Application to Control of Rectifier Systems. IEEE Transactions on Automatic Control, 2008, 53, 273-286.	3.6	25
7	Effectiveness and limitation of circle criterion for LTI robust control systems with control input nonlinearities of sector type. International Journal of Robust and Nonlinear Control, 2005, 15, 873-901.	2.1	20
8	Multivariable harmonic balance analysis of the neuronal oscillator for leech swimming. Journal of Computational Neuroscience, 2008, 25, 583-606.	0.6	19
9	Design of Coupled Harmonic Oscillators for Synchronization and Coordination. IEEE Transactions on Automatic Control, 2017, 62, 3877-3889.	3.6	17
10	Lyapunov-based exact stability analysis and synthesis for linear single-parameter dependent systems. International Journal of Control, 2010, 83, 1823-1838.	1.2	16
11	Robust entrainment to natural oscillations of asymmetric systems arising from animal locomotion. , 2009, , .		15
12	Mechanisms underlying rhythmic locomotion: dynamics of muscle activation. Journal of Experimental Biology, 2011, 214, 1955-1964.	0.8	14
13	Robust stability analysis for LTI systems with generalized frequency variables and its application to gene regulatory networks. Automatica, 2019, 105, 96-106.	3.0	12
14	Exciting multi-DOF systems by feedback resonance. Automatica, 2013, 49, 1782-1789.	3.0	11
15	Feedback Control for Natural Oscillations of Locomotion Systems Under Continuous Interactions With Environment. IEEE Transactions on Control Systems Technology, 2015, 23, 1294-1306.	3.2	10
16	ℌ<inf>2</inf> and ℌ<inf>∞</inf> norm computations for LTI systems with generalized frequency variables. , 2010, , .		8
17	State Space Region Attaining L2 Performance for Saturating Control System. Transactions of the Society of Instrument and Control Engineers, 2001, 37, 307-315.	0.1	7
18	Pattern Formation Via Eigenstructure Assignment: General Theory and Multi-Agent Application. IEEE Transactions on Automatic Control, 2018, 63, 1959-1972.	3.6	6

#	Article	IF	Citations
19	Orbital Stability Analysis for Perturbed Nonlinear Systems and Natural Entrainment via Adaptive Andronovâ€“Hopf Oscillator. IEEE Transactions on Automatic Control, 2020, 65, 87-101.	3.6	6
20	Autonomous locomotion of multi-link mechanical systems via natural oscillation pattern. , 2010, , .		5
21	CPG Control for Harmonic Motion of Assistive Robot With Human Motor Control Identification. IEEE Transactions on Control Systems Technology, 2020, 28, 1323-1336.	3.2	5
22	Coordinated Rhythmic Motion by Uncoupled Neuronal Oscillators with Sensory Feedback. SICE Journal of Control Measurement and System Integration, 2008, 1, 165-174.	0.4	5
23	CPG control for assisting human with periodic motion tasks. , 2016, , .		4
24	Exploiting natural dynamics for gait generation in undulatory locomotion. International Journal of Control, 2020, 93, 307-318.	1.2	4
25	Synthesis of controllers for exact entrainment to natural oscillation. , 2010, , .		3
26	Optimal turning gait for undulatory locomotion. , 2012, , .		3
27	Orbital stability analysis of coupled harmonic oscillators. , 2012, , .		3
28	Neural control for coordinated natural oscillation patterns. Systems and Control Letters, 2013, 62, 693-698.	1.3	3
29	Control design for coordinated oscillations with central pattern generator. , 2013, , .		3
30	Design of controllers with distributed central pattern generator architecture for adaptive oscillations. International Journal of Robust and Nonlinear Control, 2021, 31, 694-714.	2.1	3
31	Robust Instability Analysis with Application to Neuronal Dynamics. , 2020, , .		3
32	On finite time resonance entrainment in multi-DOF systems. , 2012, , .		2
33	Dynamic modeling and gait analysis of batoid swimming. , 2013, , .		2
34	Eigenstructure assignment with application to consensus of linear heterogeneous agents. , 2015, , .		2
35	Dynamical Model and Optimal Turning Gait for Mechanical Rectifier Systems. IEEE Transactions on Automatic Control, 2017, 62, 682-693.	3.6	2
36	Adaptive natural entrainment via Andronov-Hopf oscillator. , 2017, , .		2

#	Article	IF	Citations
37	Design of coupled Andronovâ€“Hopf oscillators with desired strange attractors. Nonlinear Dynamics, 2020, 100, 1659-1672.	2.7	2
38	Basics of Autonomous Nonlinear Oscillators: Limit Cycle, Orbital Stability, and Synchronization. SICE Journal of Control Measurement and System Integration, 2018, 11, 2-13.	0.4	2
39	Feasibility Analysis for the Rotordynamic Performance of API617. Journal of Engineering for Gas Turbines and Power, 2005, 127, 418-424.	0.5	1
40	Analysis and Synthesis of Weakly Coupled Oscillators by Multivariable Harmonic Balance Approach. , 2006, , .		1
41	Natural modes and resonance in undulatory locomotion. , 2017, , .		1
42	Stability Region for Linear Systems with Generalized Frequency Variables. Transactions of the Society of Instrument and Control Engineers, 2012, 48, 479-487.	0.1	1
43	Instability margin analysis for parametrized LTI systems with application to repressilator. Automatica, 2022, 136, 110047.	3.0	1
44	Analysis of weakly coupled neuronal oscillators and its applications to leech swimming. , 2010, , .		0
45	Generalizing the KYP lemma to the union of intervals. , 2013, , .		0
46	NABI-S: A compliant robot with a CPG for locomotion. , 2017, , .		0
47	Design of Complex Oscillator Network with multiple Limit Cycles. , 2018, , .		0
48	CPG assistive motion control for variable stiffness actuators. , 2019, , .		0
49	A Linear Perspective on Nonlinear Oscillations in Biological Control System for Locomotion. , 2019, , .		0