

Marcel Heertjes

List of Publications by Year in descending order

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56
papers

820
citations

623574

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57
all docs

57
docs citations

57
times ranked

372
citing authors

#	ARTICLE	IF	CITATIONS
1	MIMO feed-forward design in wafer scanners using a gradient approximation-based algorithm. Control Engineering Practice, 2010, 18, 495-506.	3.2	92
2	Nonlinear iterative learning control with applications to lithographic machinery. Control Engineering Practice, 2007, 15, 1545-1555.	3.2	65
3	Frequency-domain tools for stability analysis of reset control systems. Automatica, 2017, 82, 101-108.	3.0	50
4	Industry engagement with control research: Perspective and messages. Annual Reviews in Control, 2020, 49, 1-14.	4.4	47
5	Performance-Improved Design of N-PID Controlled Motion Systems With Applications to Wafer Stages. IEEE Transactions on Industrial Electronics, 2009, 56, 1347-1355.	5.2	46
6	Performance of convergence-based variable-gain control of optical storage drives. Automatica, 2008, 44, 15-27.	3.0	43
7	Stability and performance of a variable gain controller with application to a dvd storage drive. Automatica, 2004, 40, 591-602.	3.0	32
8	Synthesis of Variable Gain Integral Controllers for Linear Motion Systems. IEEE Transactions on Control Systems Technology, 2015, 23, 139-149.	3.2	31
9	Self-tuning MIMO disturbance feedforward control for active hard-mounted vibration isolators. Control Engineering Practice, 2018, 72, 90-103.	3.2	31
10	Self-tuning in master-slave synchronization of high-precision stage systems. Control Engineering Practice, 2013, 21, 1706-1715.	3.2	26
11	Second-order reset elements for stage control design. , 2016, , .		26
12	Hybrid integrator design for enhanced tracking in motion control. , 2017, , .		24
13	EXPERIMENTAL AND NUMERICAL ANALYSIS OF THE STEADY STATE BEHAVIOUR OF A BEAM SYSTEM WITH IMPACT. Journal of Sound and Vibration, 1998, 212, 321-336.	2.1	23
14	Minimizing cross-talk in high-precision motion systems using data-based dynamic decoupling. Control Engineering Practice, 2011, 19, 1423-1432.	3.2	18
15	A Hybrid Integrator-Gain Based Low-Pass Filter for Nonlinear Motion Control. , 2018, , .		17
16	Data-Based Motion Control of Wafer Scanners. IFAC-PapersOnLine, 2016, 49, 1-12.	0.5	16
17	Switching control in blu-ray disk drives. Mechatronics, 2010, 20, 453-463.	2.0	15
18	Nonlinear control of optical storage drives with improved shock performance. Control Engineering Practice, 2005, 13, 1295-1305.	3.2	14

#	ARTICLE	IF	CITATIONS
19	Performance optimization of piecewise affine variable-gain controllers for linear motion systems. <i>Mechatronics</i> , 2014, 24, 648-660.	2.0	14
20	Directional notch filters for motion control of flexible structures. <i>Mechatronics</i> , 2014, 24, 632-639.	2.0	14
21	Self-tuning in integral sliding mode control with a Levenberg-Marquardt algorithm. <i>Mechatronics</i> , 2014, 24, 385-393.	2.0	14
22	Projection-based integrators for improved motion control: Formalization, well-posedness and stability of hybrid integrator-gain systems. <i>Automatica</i> , 2021, 133, 109830.	3.0	13
23	Extended Projected Dynamical Systems with Applications to Hybrid Integrator-Gain Systems. , 2019, , .		12
24	MIMO FIR feedforward design for zero error tracking control. , 2014, , .		10
25	Robust control and data-driven tuning of a hybrid integrator-gain system with applications to wafer scanners. <i>International Journal of Adaptive Control and Signal Processing</i> , 2019, 33, 371-387.	2.3	10
26	Hybrid Integrator-Gain System for Active Vibration Isolation with Improved Transient Response. <i>IFAC-PapersOnLine</i> , 2019, 52, 454-459.	0.5	10
27	Continuous compliance compensation of position-dependent flexible structures. <i>IFAC-PapersOnLine</i> , 2016, 49, 76-81.	0.5	9
28	Experimental Evaluation of Reset Control for Improved Stage Performance. <i>IFAC-PapersOnLine</i> , 2016, 49, 93-98.	0.5	9
29	H [∞] feedback and feedforward controller design for active vibration isolators. <i>IFAC-PapersOnLine</i> , 2017, 50, 13384-13389.	0.5	9
30	Practical tuning guide to mixed feedback and feedforward control of soft-mounted vibration isolators. <i>IFAC-PapersOnLine</i> , 2016, 49, 163-169.	0.5	8
31	Robust Stability and Nonlinear Loop-Shaping Design for Hybrid Integrator-Gain-Based Control Systems. , 2019, , .		8
32	Controlling the nonlinear dynamics of a beam system. <i>Chaos, Solitons and Fractals</i> , 2001, 12, 49-66.	2.5	6
33	Overcoming Performance Limitations of Linear Control with Hybrid Integrator-Gain Systems. <i>IFAC-PapersOnLine</i> , 2021, 54, 289-294.	0.5	6
34	Circle criterion in linear control design. , 2008, , .		5
35	Iterative Pole-Zero model updating: A combined sensitivity approach. <i>Control Engineering Practice</i> , 2018, 71, 164-174.	3.2	5
36	On characterization of a generic lithography machine in a multi-directional space. <i>Mechanism and Machine Theory</i> , 2022, 170, 104638.	2.7	5

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37	Model-based piecewise affine variable-gain controller synthesis. , 2013, , .		3
38	Data-driven tuning of a hybrid integrator-gain system. IFAC-PapersOnLine, 2017, 50, 10851-10856.	0.5	3
39	Iterative pole-zero finite element model updating using generic parameters. Mechatronics, 2018, 55, 180-193.	2.0	3
40	Experimental modeling of hysteresis in stage systems: A Maxwell's law approach. Mechatronics, 2021, 75, 102525.	2.0	3
41	On the Equivalence of Extended and Oblique Projected Dynamics with Applications to Hybrid Integrator-Gain Systems. , 2021, , .		3
42	Nonlinear Q-filter in the learning of nano-positioning motion systems. , 2009, , .		3
43	Improving Wafer Stage Performance With Multiple Hybrid Integrator-Gain Systems. IFAC-PapersOnLine, 2020, 53, 8321-8326.	0.5	3
44	PARTIAL FEEDBACK LINEARIZATION ON A HARMONICALLY EXCITED BEAM WITH ONE-SIDED SPRING. Journal of Sound and Vibration, 1999, 228, 939-959.	2.1	2
45	Improved noise sensitivity under high-gain feedback in nano-positioning motion systems. , 2009, , .		2
46	A compliance feedforward scheme for a class of LTV motion systems. , 2017, , .		2
47	Design and performance tradeoffs in MIMO disturbance feedforward control. , 2018, , .		2
48	Experimental Demonstration of a Nonlinear PID-Based Control Design Using Multiple Hybrid Integrator-Gain Elements. , 2020, , .		2
49	Stability and performance analysis of hybrid integrator's gain systems: A linear matrix inequality approach. Nonlinear Analysis: Hybrid Systems, 2022, 45, 101192.	2.1	2
50	Stabilizing the 1-Periodic Response of a Beam with One-Sided Spring: Experiment Versus Simulation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 547-552.	0.4	1
51	Scheduled controller design for systems with two switching sensor configurations: A frequency-domain approach**This work is supported by the Dutch Technology Foundation (STW) under project 'HyperMotion: Hybrid Control for Performance Improvement of Linear Motion Systems' (no. 10953). IFAC-PapersOnLine, 2015, 48, 99-104.	0.5	1
52	Evaluating performance of multivariable vibration isolators: A frequency domain identification approach applied to an industrial AVIS. , 2017, , .		1
53	Resonant-Dynamics LTV Feedforward for Flexible Motion Systems. , 2018, , .		1
54	Call for Papers: <i>International Journal of Robust and Nonlinear Control Performance of Nonlinear Control Systems</i>. International Journal of Robust and Nonlinear Control, 2011, 21, 1354-1354.	2.1	0

#	ARTICLE	IF	CITATIONS
55	Introduction to the special issue on "Performance of nonlinear control systems". International Journal of Robust and Nonlinear Control, 2013, 23, 1063-1064.	2.1	0
56	Design of a fractional-order integrator for high-precision stages. , 2014, , .		0