Hans Zwart

List of Publications by Year
in descending order

92 papers	3,800 citations	279798 23 h-index	128289 60 g-index
93 all docs	93 docs citations	93 times ranked	1308 citing authors

#	Article	IF	Citations
1	An Introduction to Infinite-Dimensional Linear Systems Theory. Texts in Applied Mathematics, 1995, , .	0.4	2,097
2	Dirac structures and Boundary Control Systems associated with Skew-Symmetric Differential Operators. SIAM Journal on Control and Optimization, 2005, 44, 1864-1892.	2.1	219
3	On â„‹/sub â^ž/ control for dead-time systems. IEEE Transactions on Automatic Control, 2000, 45, 272-285.	5.7	141
4	Exponential Stability of a Class of Boundary Control Systems. IEEE Transactions on Automatic Control, 2009, 54, 142-147.	5.7	86
5	Exponential Stabilization of Boundary Controlled Port-Hamiltonian Systems With Dynamic Feedback. IEEE Transactions on Automatic Control, 2014, 59, 2849-2855.	5.7	72
6	Linear port-Hamiltonian descriptor systems. Mathematics of Control, Signals, and Systems, 2018, 30, 1.	2.3	71
7	System theoretic properties of a class of spatially invariant systems. Automatica, 2009, 45, 1619-1627.	5.0	64
8	Transfer functions for infinite-dimensional systems. Systems and Control Letters, 2004, 52, 247-255.	2.3	58
9	On the Synthesis of Boundary Control Laws for Distributed Port-Hamiltonian Systems. IEEE Transactions on Automatic Control, 2017, 62, 1700-1713.	5.7	57
10	Well-posedness and regularity of hyperbolic boundary control systems on a one-dimensional spatial domain. ESAIM - Control, Optimisation and Calculus of Variations, 2010, 16, 1077-1093.	1.3	53
11	Counterexamples Concerning Observation Operators for C0 -Semigroups. SIAM Journal on Control and Optimization, 2004, 43, 137-153.	2.1	36
12	Dirac structures and their composition on Hilbert spaces. Journal of Mathematical Analysis and Applications, 2010, 372, 402-422.	1.0	36
13	Stabilization of infinite dimensional port-Hamiltonian systems by nonlinear dynamic boundary control. Automatica, 2017, 85, 61-69.	5.0	34
14	Some remarks on adaptive stabilization of infinite-dimensional systems. Systems and Control Letters, 1991, 16, 199-207.	2.3	33
15	LPMLE3: A novel 1â€Ð approach to study water flow in streambeds using heat as a tracer. Water Resources Research, 2016, 52, 6596-6610.	4.2	33
16	Co-Design of Controller and Communication Topology for Vehicular Platooning. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 2728-2739.	8.0	33
17	On continuity of solutions for parabolic control systems and input-to-state stability. Journal of Differential Equations, 2019, 266, 6284-6306.	2.2	33
18	An example in linear quadratic optimal control. Systems and Control Letters, 1998, 33, 339-349.	2.3	30

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19	Exact observability of diagonal systems with a finite-dimensional output operator. Systems and Control Letters, 2001, 43, 101-109.	2.3	30
20	C 0-semigroups for hyperbolic partial differential equations on a one-dimensional spatial domain. Journal of Evolution Equations, 2015, 15, 493-502.	1.1	30
21	On the Relation between Stability of Continuous- and Discrete-Time Evolution Equations via the Cayley Transform. Integral Equations and Operator Theory, 2006, 54, 349-383.	0.8	26
22	Riesz basis for strongly continuous groups. Journal of Differential Equations, 2010, 249, 2397-2408.	2.2	25
23	A comparison between LQR control for a long string of SISO systems and LQR control of the infinite spatially invariant version. Automatica, 2010, 46, 1604-1615.	5.0	25
24	Stability and Stabilization of a Class of Boundary Control Systems. , 0, , .		24
25	Weak admissibility does not imply admissibility for analytic semigroups. Systems and Control Letters, 2003, 48, 341-350.	2.3	22
26	On Robust PI-Control of Infinite-Dimensional Systems. SIAM Journal on Control and Optimization, 1992, 30, 573-593.	2.1	17
27	Stabilization of collocated systems by nonlinear boundary control. Systems and Control Letters, 2016, 96, 11-14.	2.3	16
28	Well-posedness of infinite-dimensional linear systems with nonlinear feedback. Systems and Control Letters, 2019, 128, 19-25.	2.3	16
29	Luenberger boundary observer synthesis for Sturm–Liouville systems. International Journal of Control, 2010, 83, 1504-1514.	1.9	15
30	Explicit approximations to estimate the perturbative diffusivity in the presence of convectivity and damping. I. Semi-infinite slab approximations. Physics of Plasmas, 2014, 21, 112507.	1.9	14
31	Frequency domain sample maximum likelihood estimation for spatially dependent parameter estimation in PDEs. Automatica, 2014, 50, 2113-2119.	5.0	14
32	The Nehari problem for the Pritchard-Salamon class of infinite-dimensional linear systems: a direct approach. Integral Equations and Operator Theory, 1994, 18, 130-153.	0.8	13
33	Riccati equations and normalized coprime factorizations for strongly stabilizable infinite-dimensional systems. Systems and Control Letters, 1996, 28, 11-22.	2.3	13
34	Continuity of the spectral factorization on a vertical strip. Systems and Control Letters, 1999, 37, 183-192.	2.3	12
35	Sufficient conditions for admissibility. Systems and Control Letters, 2005, 54, 973-979.	2.3	12
36	A representation of all solutions of the control algebraic Riccati equation for infinite-dimensional systems. International Journal of Control, 2005, 78, 505-520.	1.9	12

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37	Continuous-time Kreiss resolvent condition on infinite-dimensional spaces. Mathematics of Computation, 2006, 75, 1971-1985.	2.1	12
38	Estimation of the thermal diffusion coefficient in fusion plasmas taking frequency measurement uncertainties into account. Plasma Physics and Controlled Fusion, 2014, 56, 105004.	2.1	12
39	J-spectral factorization and equalizing vectors. Systems and Control Letters, 2001, 43, 321-327.	2.3	11
40	Crankâ€"Nicolson Scheme for Abstract Linear Systems. Numerical Functional Analysis and Optimization, 2007, 28, 717-736.	1.4	11
41	A Note on Polynomially Growing C0-Semigroups. Semigroup Forum, 2007, 75, 438-445.	0.6	11
42	The ventricular fibrillation waveform in relation to shock success in early vs. late phases of out-of-hospital resuscitation. Resuscitation, 2019, 139, 99-105.	3.0	11
43	Zeros of infinite-dimensional systems. IMA Journal of Mathematical Control and Information, 1997, 14, 85-94.	1.7	10
44	Open-loop stabilizability of infinite-dimensional systems. Mathematics of Control, Signals, and Systems, 1998, 11, 129-160.	2.3	10
45	Stability of perturbed linear distributed parameter systems. Systems and Control Letters, 1991, 17, 257-264.	2.3	9
46	On the invertibility and bounded extension of C 0 -semigroups. Semigroup Forum, 2001, 63, 153-160.	0.6	9
47	Properties of the Realization of Inner Functions. Mathematics of Control, Signals, and Systems, 2002, 15, 356-379.	2.3	9
48	Switching input controller for a food storage room. Control Engineering Practice, 2010, 18, 507-514.	5.5	9
49	Zero-two law for cosine families. Journal of Evolution Equations, 2015, 15, 559-569.	1.1	9
50	Nehari problems and equalizing vectors for infinite-dimensional systems. Systems and Control Letters, 2002, 45, 217-225.	2.3	8
51	Growth Estimates for exp(A-1t) on a Hilbert Space. Semigroup Forum, 2007, 74, 487-494.	0.6	8
52	The growth of a C 0-semigroup characterised by its cogenerator. Journal of Evolution Equations, 2008, 8, 749-764.	1.1	8
53	System theoretic properties of platoon-type systems. , 2008, , .		8
54	Linking hyperbolic and parabolic p.d.e.'s. , 2011, , .		7

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55	operators and <mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com...	1.4	7
56	De Brangesâ€"Rovnyak Realizations of Operator-Valued Schur Functions on the Complex Right Half-Plane. Complex Analysis and Operator Theory, 2015, 9, 723-792.	0.6	7
57	Building systems from simple hyperbolic ones. Systems and Control Letters, 2016, 91, 1-6.	2.3	7
58	An operator theoretic approach to infiniteâ€dimensional control systems. GAMM Mitteilungen, 2018, 41, e201800010.	5.5	6
59	Stabilization of port-Hamiltonian systems by nonlinear boundary control in the presence of disturbances. ESAIM - Control, Optimisation and Calculus of Variations, 2021, 27, 53.	1.3	6
60	Sensor and Actuator Placement for Proportional Feedback Control in Advection-Diffusion Equations. , 2020, 4, 193-198.		5
61	The Cayley Transform of the Generator of a Bounded C0-Semigroup. Semigroup Forum, 2007, 74, 140-148.	0.6	4
62	A Lyapunov approach to strong stability of semigroups. Systems and Control Letters, 2013, 62, 673-678.	2.3	4
63	Linear wave systems onn-D spatial domains. International Journal of Control, 2014, , 1-24.	1.9	4
64	Impulsive Steering Between Coexisting Stable Periodic Solutions With an Application to Vibrating Plates. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	1.2	4
65	A systematic approach to optimize excitations for perturbative transport experiments. Physics of Plasmas, 2018, 25, .	1.9	4
66	Port-Hamiltonian modelling of nonlocal longitudinal vibrations in a viscoelastic nanorod. Mathematical and Computer Modelling of Dynamical Systems, 2019, 25, 447-462.	2.2	4
67	Modeling and control of water disinfection process in annular photoreactors. , 2007, , .		3
68	Stability Analysis in Continuous and Discrete Time, using the Cayley Transform. Integral Equations and Operator Theory, 2010, 68, 487-502.	0.8	3
69	<mml:math altimg="si1.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier... linda	0.4	3
70	Left-invertible semigroups on Hilbert spaces. Journal of Evolution Equations, 2013, 13, 335-342.	1.1	3
71	Optimal Thermal Actuation for Mitigation of Heat-Induced Wafer Deformation. IEEE Transactions on Control Systems Technology, 2021, 29, 514-529.	5.2	3
72	Pilot study on VF-waveform based algorithms for early detection of acute myocardial infarction during out-of-hospital cardiac arrest. Resuscitation, 2022, 174, 62-67.	3.0	3

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73	Open Loop Stabilizability, a Research Note. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1989, 22, 111-115.	0.4	2
74	Dissipative boundary control systems with application to distributed parameters reactors. , 2006, , .		2
75	Exponential stabilization of a class of flexible microgrippers using dynamic boundary port Hamiltonian control. , 2013, , .		2
76	Feedback theory extended for proving generation of contraction semigroups. Journal of Evolution Equations, 2016, 16, 617-647.	1.1	2
77	A compliance feedforward scheme for a class of LTV motion systems. , 2017, , .		2
78	On backstepping boundary control for a class of linear port-Hamiltonian systems. , 2017, , .		2
79	Zero dynamics for networks of waves. Automatica, 2019, 103, 310-321.	5.0	2
80	Generators with a closure relation. Operators and Matrices, 2014, , 157-165.	0.3	2
81	Riesz Bases of Port-Hamiltonian Systems. SIAM Journal on Control and Optimization, 2021, 59, 4646-4665.	2.1	2
82	Modelling and controller design for distributed parameter systems via residence time distribution. International Journal of Control, 2009, 82, 1404-1413.	1.9	1
83	Relating systems properties of the wave and the Schrödinger equation. Evolution Equations and Control Theory, 2015, 4, 233-240.	1.3	1
84	An empirical model for educational simulation of cervical dilation in first-stage labor. Advances in Simulation, 2018, 3, 9.	2.3	1
85	Resonant-Dynamics LTV Feedforward for Flexible Motion Systems. , 2018, , .		1
86	The method of images in thermoelasticity with an application to wafer heating. Journal of Thermal Stresses, 2021, 44, 970-1010.	2.0	1
87	Identification of Movements and Postures Using Wearable Sensors for Implementation in a Bi-Hormonal Artificial Pancreas System. Sensors, 2021, 21, 5954.	3.8	1
88	Linear-time-varying feedforward control for position-dependent flexible structures. , 2020, , .		1
89	Stabilization of a class of mixed ODEâ€"PDE port-Hamiltonian systems with strong dissipation feedback. Automatica, 2022, 142, 110284.	5.0	1
90	Robust controllers for dead-time systems. , 0, , .		0

#	Article	IF	Citations
91	Using System Theory and Energy Methods to prove Existence of Non-Linear PDE's. IFAC-PapersOnLine, 2015, 48, 241-243.	0.9	0
92	Asymptotic stability for a class of boundary control systems with non-linear damping**This work was supported by French sponsored projects HAMEC-MOPSYS and Labex ACTION under reference codes ANR-11-BS03-0002 and ANR-11-LABX-0001-01 respectively.. IFAC-PapersOnLine, 2016, 49, 304-308.	0.9	0