Christopher Kellett

List of Publications by Year
in descending order

116	2,105	279798	265206
papers	citations	23 h-index	42 g-index

116	116	116	1536
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Distributed and Decentralized Control of Residential Energy Systems Incorporating Battery Storage. IEEE Transactions on Smart Grid, 2015, 6, 1914-1923.	9.0	162
2	A compendium of comparison function results. Mathematics of Control, Signals, and Systems, 2014, 26, 339-374.	2.3	150
3	Residential load and rooftop PV generation: an Australian distribution network dataset. International Journal of Sustainable Energy, 2017, 36, 787-806.	2.4	129
4	An optimization-based approach to scheduling residential battery storage with solar PV: Assessing customer benefit. Renewable Energy, 2015, 75, 123-134.	8.9	122
5	Smooth Lyapunov functions and robustness of stability for difference inclusions. Systems and Control Letters, 2004, 52, 395-405.	2.3	107
6	On the Robustness of $mathcalKL$-stability for Difference Inclusions: Smooth Discrete-Time Lyapunov Functions. SIAM Journal on Control and Optimization, 2005, 44, 777-800.	2.1	87
7	Scheduling residential battery storage with solar PV: Assessing the benefits of net metering. Applied Energy, 2015, 155, 881-891.	10.1	86
8	Connection between cooperative positive systems and integral input-to-state stability of large-scale systems. Automatica, 2010, 46, 1019-1027.	5.0	62
9	The Capacity Region of Multiway Relay Channels Over Finite Fields With Full Data Exchange. IEEE Transactions on Information Theory, 2011, 57, 3016-3031.	2.4	62
10	Classical converse theorems in Lyapunov's second method. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 2333-2360.	0.9	62
11	An optimal coding strategy for the binary multi-way relay channel. IEEE Communications Letters, 2010, 14, 330-332.	4.1	57
12	A Distributed Optimization Algorithm for the Predictive Control of Smart Grids. IEEE Transactions on Automatic Control, 2016, 61, 3898-3911.	5.7	55
13	Central versus localized optimization-based approaches to power management in distribution networks with residential battery storage. International Journal of Electrical Power and Energy Systems, 2016, 80, 396-406.	5.5	55
14	Discrete-time asymptotic controllability implies smooth control-Lyapunov function. Systems and Control Letters, 2004, 52, 349-359.	2.3	44
15	Weak Converse Lyapunov Theorems and Control-Lyapunov Functions. SIAM Journal on Control and Optimization, 2004, 42, 1934-1959.	2.1	44
16	Hierarchical distributed ADMM for predictive control with applications in power networks. IFAC Journal of Systems and Control, 2018, 3, 10-22.	1.7	39
17	Capacity Theorems for the AWGN multi-way relay channel. , 2010, , .		38
18	Further Results on Robustness of (Possibly Discontinuous) Sample and Hold Feedback. IEEE Transactions on Automatic Control, 2004, 49, 1081-1089.	5.7	33

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19	On the Equal-Rate Capacity of the AWGN Multiway Relay Channel. IEEE Transactions on Information Theory, 2012, 58, 5761-5769.	2.4	33
20	ISS-Lyapunov Functions for Discontinuous Discrete-Time Systems. IEEE Transactions on Automatic Control, 2014, 59, 3098-3103.	5.7	33
21	Feedback, dynamics, and optimal control in climate economics. Annual Reviews in Control, 2019, 47, 7-20.	7.9	33
22	A Project-Based Learning Approach to Programmable Logic Design and Computer Architecture. IEEE Transactions on Education, 2012, 55, 378-383.	2.4	29
23	Input-to-State Stability, Integral Input-to-State Stability, and <inline-formula> <tex-math notation="LaTeX">${cal L}_{2} $</tex-math></inline-formula>-Gain Properties: Qualitative Equivalences and Interconnected Systems. IEEE Transactions on Automatic Control, 2016, 61, 3-17.	5.7	28
24	Computation of Lyapunov functions for systems with multiple local attractors. Discrete and Continuous Dynamical Systems, 2015, 35, 4019-4039.	0.9	24
25	Stabilization of strictly dissipative discrete time systems with discounted optimal control. Automatica, 2018, 93, 311-320.	5.0	23
26	Convergence Properties for Discrete-Time Nonlinear Systems. IEEE Transactions on Automatic Control, 2019, 64, 3415-3422.	5.7	22
27	Computation of continuous and piecewise affine Lyapunov functions by numerical approximations of the Massera construction. , 2014, , .		19
28	Nonlinear Scaling of (i)ISS-Lyapunov Functions. IEEE Transactions on Automatic Control, 2016, 61, 1087-1092.	5.7	18
29	An optimization-based approach for assessing the benefits of residential battery storage in conjunction with solar PV. , 2013, , .		17
30	Computing continuous and piecewise affine lyapunov functions for nonlinear systems. Journal of Computational Dynamics, 2015, 2, 227-246.	1.1	17
31	Incremental stability properties for discrete-time systems. , 2016, , .		16
32	Continuous and piecewise affine Lyapunov functions using the Yoshizawa construction. , 2014, , .		15
33	On the Relation Between Turnpike Properties for Finite and Infinite Horizon Optimal Control Problems. Journal of Optimization Theory and Applications, 2017, 173, 727-745.	1.5	14
34	Feedback design using nonsmooth control Lyapunov functions: A numerical case study for the nonholonomic integrator. , 2017, , .		14
35	Sizing Internet Router Buffers, Active Queue Management, and the Lur'e Problem. , 2006, , .		12
36	A receding horizon control approach to estimating the social cost of carbon in the presence of emissions and temperature uncertainty. , 2015, , .		12

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37	A dynamic programming approach to the approximation of nonlinear L<inf>2</inf>-gain. , 2008, , .		11
38	Belief propagation as a dynamical system: the linear case and open problems. IET Control Theory and Applications, 2010, 4, 1188-1200.	2.1	11
39	iISS and ISS dissipation inequalities: preservation and interconnection by scaling. Mathematics of Control, Signals, and Systems, 2016, 28, 1.	2.3	11
40	On continuous-time infinite horizon optimal controlâ€"Dissipativity, stability, and transversality. Automatica, 2021, 134, 109907.	5.0	11
41	Nonlinear model predictive controller design for extreme load mitigation in transition operation region in wind turbines. , 2015, , .		10
42	Nonlinear ℒ<inf>2</inf>-gain analysis via a cascade. , 2010, , .		9
43	Distributed Control of Residential Energy Systems using a Market Maker. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 11641-11646.	0.4	9
44	Towards price-based predictive control of a small-scale electricity network. International Journal of Control, 2020, 93, 40-61.	1.9	9
45	Nonlinear control tools for low thrust orbital transfer. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 79-86.	0.4	8
46	Nonlinear -gain verification for nonlinear systems. Systems and Control Letters, 2012, 61, 563-572.	2.3	8
47	On a discounted notion of strict dissipativity**C.M. Kellett and L. GrÃ¼ne are supported by Australian Research Council Discovery Project DP160102138. L. GrÃ¼ne is supported by the Deutsche Forschungsgemeinschaft, Grant GR 1569/13-1. The paper was written while L. GrÃ¼ne was visiting the University of Newcastle.. IFAC-PapersOnLine, 2016, 49, 247-252.	0.9	8
48	Unsafe Point Avoidance in Linear State Feedback. , 2018, , .		8
49	Robustness of discontinuous feedback via sample and hold control. , 2002, , .		7
50	Sufficient conditions for robustness of $$mathcal{K}mathcal{L}$$ -stability for difference inclusions. Mathematics of Control, Signals, and Systems, 2007, 19, 183-205.	2.3	7
51	The Three-User Finite-Field Multi-Way Relay Channel with Correlated Sources. IEEE Transactions on Communications, 2013, 61, 3125-3135.	7.8	7
52	On the capacity of the binaryâ€symmetric parallelâ€relay network. Transactions on Emerging Telecommunications Technologies, 2014, 25, 217-230.	3.9	7
53	Computation of continuous and piecewise affine Lyapunov functions for discrete-time systems. Journal of Difference Equations and Applications, 2015, 21, 486-511.	1.1	7
54	Results on discrete-time control-lyapunov functions. , 0, , .		6

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55	Adaptive tuning of drop-tail buffers for reducing queueing delays. IEEE Communications Letters, 2006, 10, 570-572.	4.1	6
56	Joint channelâ€network coding strategies for networks with lowâ€complexity relays. European Transactions on Telecommunications, 2011, 22, 396-406.	1.2	6
57	Computation of Lyapunov functions for discrete-time systems using the Yoshizawa construction. , 2014, , .		6
58	Input-to-state stability with respect to two measurement functions: Discrete-time systems. , 2015, , .		6
59	Towards a FAIR-DICE IAM: Combining DICE and FAIR Models âŽ âŽTF acknowledges support from the Daimler Benz Foundation. TF, CMK, and SRW are supported by the Australian Research Council under ARC-DP180103026.. IFAC-PapersOnLine, 2018, 51, 126-131.	0.9	6
60	A Small-Gain Theorem in the Absence of Strong iISS. IEEE Transactions on Automatic Control, 2019, 64, 3897-3904.	5.7	6
61	Adaptive Semiglobal Nonlinear Output Regulation: An Extended-State Observer Approach. IEEE Transactions on Automatic Control, 2020, 65, 2670-2677.	5.7	6
62	Explicit Construction of Stabilizing Robust Avoidance Controllers for Linear Systems With Drift. IEEE Transactions on Automatic Control, 2021, 66, 595-610.	5.7	6
63	Robust implementable regulator design of linear systems with non-vanishing measurements. Automatica, 2022, 143, 110418.	5.0	6
64	The Half-Duplex AWGN Single-Relay Channel: Full Decoding or Partial Decoding?. IEEE Transactions on Communications, 2012, 60, 3156-3160.	7.8	5
65	A weak L<inf>2</inf>-gain property for nonlinear systems. , 2012, , .		5
66	A generalization of Input-to-State Stability. , 2012, , .		5
67	Preservation and interconnection of iISS and ISS dissipation inequalities by scalingâˆ—âˆ—The work was supported in part by JSPS KAKENHI Grant Number 26420422. The work of Kellett was supported by the Australian Research Council under FT1101000746.. IFAC-PapersOnLine, 2015, 48, 766-771.	0.9	5
68	Predictive control of a Smart Grid: A distributed optimization algorithm with centralized performance properties. , 2015, , .		5
69	Qualitative equivalences of ISS and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>l</mml:mi></mml:mrow><mml:mrow><mml:mi>p</mml:mi></mml:mrow></mml:msub></mml:math> stability properties for discrete-time nonlinear systems. Automatica, 2017, 77, 360-369.	5.0	5
70	Strict dissipativity for discrete time discounted optimal control problems. Mathematical Control and Related Fields, 2021, 11, 771.	1.1	5
71	STABILITY RESULTS FOR NETWORKED CONTROL SYSTEMS SUBJECT TO PACKET DROPOUTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 73-78.	0.4	4
72	Fairness and Convergence Results for Additive-Increase Multiplicative-Decrease Multiple-Bottleneck Networks. , 2006, , .		4

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73	Input-to-State Stability, Integral Input-to-State Stability, and Unbounded Level Sets. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 38-43.	0.4	4
74	Complete Instability of Differential Inclusions using Lyapunov Methods. , 2018, , .		4
75	MPC-DICE: An open-source Matlab implementation of receding horizon solutions to DICE âŽ âŽTF acknowledges support from the Daimler Benz Foundation. The authors are supported by the Australian Research Council under ARC-DP180103026.. IFAC-PapersOnLine, 2018, 51, 120-125.	0.9	4
76	Complete control Lyapunov functions: Stability under state constraints. IFAC-PapersOnLine, 2019, 52, 358-363.	0.9	4
77	Robust Output Feedback Stabilization of MIMO Invertible Nonlinear Systems With Output-Dependent Multipliers. IEEE Transactions on Automatic Control, 2022, 67, 2989-2996.	5.7	4
78	On the Dynamics of TCP's Higher Moments. IEEE Communications Letters, 2007, 11, 210-212.	4.1	3
79	On AIMD Congestion Control in Multiple Bottleneck Networks. IEEE Communications Letters, 2007, 11, 631-633.	4.1	3
80	A Bounded Real Lemma for nonlinear ℒ<inf>2</inf>-gain. , 2010, , .		3
81	Functional-decode-forward for the general discrete memoryless two-way relay channel. , 2010, , .		3
82	On achievable rate regions of the asymmetric AWGN two-way relay channel. , 2011, , .		3
83	Bayesian dynamic system estimation. , 2014, , .		3
84	Relationships Between Subclasses of Integral Input-to-State Stability. IEEE Transactions on Automatic Control, 2017, 62, 2476-2482.	5.7	3
85	Impact of Climate Model Parametric Uncertainty in an MPC Implementation of the DICE Integrated Assessment Model. IFAC-PapersOnLine, 2017, 50, 959-965.	0.9	3
86	A new formulation of small-gain theorem without imposing strong iISS with respect to Disturbances on components. , 2017, , .		3
87	An Asymmetric Stabilizer Based on Scheduling Shifted Coordinates for Single-Input Linear Systems With Asymmetric Saturation. , 2022, 6, 746-751.		3
88	Model Predictive Control of Residential Energy Systems Using Energy Storage and Controllable Loads. Mathematics in Industry, 2016, , 617-623.	0.3	3
89	Joint network and channel coding for cooperative networks. , 2007, , .		2
90	Integral input-to-state stability of interconnected iISS systems by means of a lower-dimensional comparison system. , 2009, , .		2

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91	The finite field multi-way relay channel with correlated sources: The three-user case. , 2011, , .		2
92	Predictive control for longitudinal beam dynamics in heavy ion synchrotrons. , 2014, , .		2
93	Nonlinear systems with nonlinear ℒ<inf>2</inf>-gain. , 2014, , .		2
94	Transient climate response in the DICE integrated assessment model of climate-economy. , 2016, , .		2
95	Adaptive Tracking Control via Immersion and Invariance: An (i)ISS Perspective. , 2019, , .		2
96	Numerical Construction of Nonsmooth Control Lyapunov Functions. Lecture Notes in Mathematics, 2018, , 343-373.	0.2	2
97	Achievable rate regions of the butterfly network with noisy links and end-to-end error correction. , 2009, , .		1
98	The capacity of a class of multi-way relay channels. , 2010, , .		1
99	The binary-symmetric parallel-relay network. , 2010, , .		1
100	State Feedback Controller Synthesis to Achieve a Nonlinear L2-gain Property. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 11061-11066.	0.4	1
101	Stability of (integral) input-to-state stable interconnected nonlinear systems via qualitative equivalences. , 2013, , .		1
102	Optimal coding functions for pairwise message sharing on finite-field multi-way relay channels. , 2014, , .		1
103	Nonlinear L2-gain verification for bilinear systems. , 2014, , .		1
104	Equivalences of Stability Properties for Discrete-Time Nonlinear Systems. IFAC-PapersOnLine, 2015, 48, 772-777.	0.9	1
105	Feasibility of 2 °C as a post-2020 warming threshold via input-constrained optimal control. , 2015, , .		1
106	Uniting control laws: On obstacle avoidance and global stabilization of underactuated linear systems. , 2019, , .		1
107	Numerical Calculation of Nonsmooth Control Lyapunov Functions via Piecewise Affine Approximation. IFAC-PapersOnLine, 2019, 52, 370-375.	0.9	1
108	Adaptive Nonlinear Regulator Design via Immersion and Invariance. IFAC-PapersOnLine, 2019, 52, 592-597.	0.9	1

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109	Bifurcations and EXIT charts for the Binary Erasure Channel. , 2006, , .		0
110	Root Locus Plots and Iterative Decoding. , 2006, , .		0
111	A non-invasive method for link upgrade planning using coarse-grained measurements. IEEE Communications Letters, 2007, 11, 1037-1039.	4.1	0
112	Bifurcations in iterative decoding and root locus plots. IET Control Theory and Applications, 2008, 2, 1086-1093.	2.1	0
113	Offset-free output feedback predictive control for longitudinal beam dynamics in heavy ion synchrotrons. , 2014, , .		0
114	AnsÃtze zur modellprÃdiktiven Regelung der longitudinalen Strahldynamik in Synchrotronen. Automatisierungstechnik, 2015, 63, 621-632.	0.8	0
115	Analysis of discrete-time nonlinear â„“<inf>2</inf>-gain bounds via dynamic programming. , 2016, , .		0
116	Infiniteâ€horizon optimal control â€“ Asymptotics and dissipativity. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0