

Hiroshi Ito

List of Publications by Year in descending order

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567281

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84
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372
citing authors

#	ARTICLE	IF	CITATIONS
1	Necessary and Sufficient Small Gain Conditions for Integral Input-to-State Stable Systems: A Lyapunov Perspective. IEEE Transactions on Automatic Control, 2009, 54, 2389-2404.	5.7	140
2	On a Small Gain Theorem for ISS Networks in Dissipative Lyapunov Form. European Journal of Control, 2011, 17, 357-365.	2.6	84
3	A Lyapunov Approach to Cascade Interconnection of Integral Input-to-State Stable Systems. IEEE Transactions on Automatic Control, 2010, 55, 702-708.	5.7	83
4	A small-gain condition for iISS of interconnected retarded systems based on Lyapunov's Krasovskii functionals. Automatica, 2010, 46, 1646-1656.	5.0	70
5	Combining iISS and ISS With Respect to Small Inputs: The Strong iISS Property. IEEE Transactions on Automatic Control, 2014, 59, 2518-2524.	5.7	70
6	Robust Stability of Networks of iISS Systems: Construction of Sum-Type Lyapunov Functions. IEEE Transactions on Automatic Control, 2013, 58, 1192-1207.	5.7	69
7	Construction of Lyapunov Functions for Interconnected Parabolic Systems: An iISS Approach. SIAM Journal on Control and Optimization, 2015, 53, 3364-3382.	2.1	66
8	Separable Lyapunov functions for monotone systems: Constructions and limitations. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 2497-2526.	0.9	54
9	Capability and limitation of max- and sum-type construction of Lyapunov functions for networks of iISS systems. Automatica, 2012, 48, 1197-1204.	5.0	50
10	Strong iISS is preserved under cascade interconnection. Automatica, 2014, 50, 2424-2427.	5.0	36
11	An iISS Framework for Stochastic Robustness of Interconnected Nonlinear Systems. IEEE Transactions on Automatic Control, 2016, 61, 1508-1523.	5.7	28
12	Stability of stochastic nonlinear systems in cascade with not necessarily unbounded decay rates. Automatica, 2015, 62, 51-64.	5.0	26
13	Construction of Lyapunov's Krasovskii functionals for networks of iISS retarded systems in small-gain formulation. Automatica, 2013, 49, 3246-3257.	5.0	23
14	Interval observers for global feedback control of nonlinear systems with robustness with respect to disturbances. European Journal of Control, 2018, 39, 68-77.	2.6	19
15	Necessary conditions for global asymptotic stability of networks of iISS systems. Mathematics of Control, Signals, and Systems, 2012, 24, 55-74.	2.3	16
16	Integral input-to-state stability of bilinear infinite-dimensional systems. , 2014, , .		16
17	On a small gain theorem for networks of iISS systems. , 2009, , .		15
18	Max- and sum-separable Lyapunov functions for monotone systems and their level sets. , 2014, , .		15

#	ARTICLE	IF	CITATIONS
19	A Complete Characterization of Integral Input-to-State Stability and Its Small-Gain Theorem for Stochastic Systems. IEEE Transactions on Automatic Control, 2020, 65, 3039-3052.	5.7	15
20	iISS and ISS dissipation inequalities: preservation and interconnection by scaling. Mathematics of Control, Signals, and Systems, 2016, 28, 1.	2.3	11
21	Recursive scaling design for robust global nonlinear stabilization via output feedback. International Journal of Robust and Nonlinear Control, 2000, 10, 821-848.	3.7	10
22	Strict Lyapunov functions and feedback controls for SIR models with quarantine and vaccination. Discrete and Continuous Dynamical Systems - Series B, 2022, 27, 6969.	0.9	10
23	A degree of flexibility in Lyapunov inequalities for establishing input-to-state stability of interconnected systems. Automatica, 2008, 44, 2340-2346.	5.0	9
24	Construction of lyapunov functions for networks of iISS systems: An explicit solution for a cyclic structure. , 2010, , .		9
25	Revisiting the <scp>iISS</scp> Small-Gain Theorem through Transient Plus <scp>ISS</scp> Small-Gain Regulation. Asian Journal of Control, 2013, 15, 11-19.	3.0	8
26	Stochastic robustness of interconnected nonlinear systems in an iISS framework. , 2014, , .		8
27	Uniting local and global controllers for uncertain nonlinear systems: beyond global inverse optimality. Systems and Control Letters, 2002, 45, 59-79.	2.3	7
28	Computing asymptotic gains of large-scale interconnections. , 2010, , .		7
29	A small-gain theorem and construction of sum-type Lyapunov functions for networks of iISS systems. , 2011, , .		7
30	Strong iISS: Combination of iISS and ISS with respect to small inputs. , 2012, , .		7
31	An Approach to Interval Observers for Takagi-Sugeno Systems with Attractiveness Guarantees. , 2019, , .		7
32	Utility of iISS in Composing Lyapunov Functions for Interconnections. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 723-730.	0.4	6
33	A Small-Gain Theorem in the Absence of Strong iISS. IEEE Transactions on Automatic Control, 2019, 64, 3897-3904.	5.7	6
34	Interpreting models of infectious diseases in terms of integral input-to-state stability. Mathematics of Control, Signals, and Systems, 2020, 32, 611-631.	2.3	6
35	A Construction of Strict Lyapunov Functions for A Bilinear Balancing Model. IFAC-PapersOnLine, 2021, 54, 161-166.	0.9	6
36	Vaccination with Input-to-State Stability for SIR Model of Epidemics. , 2021, , .		6

#	ARTICLE	IF	CITATIONS
37	Necessary conditions for stability of networks of iISS systems. , 2010, , .		5
38	Interpreting the iISS small-gain theorem as transient plus ISS small-gain regulation. , 2010, , .		5
39	Preservation and interconnection of iISS and ISS dissipation inequalities by scaling $\hat{\alpha}^{\hat{\alpha}}$ —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
40	A small-gain-type improved criterion via preservation of iISS/ISS dissipation inequalities. , 2017, , .		5
41	Interval observer of minimal error dynamics. Automatica, 2020, 113, 108794.	5.0	5
42	A Strict Smooth Lyapunov Function and Input-to-State Stability of SIR Model. , 2021, , .		5
43	A Small-Gain Methodology for Networks of iISS Retarded Systems based on Lyapunov-Krasovskii Functionals. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 5100-5105.	0.4	4
44	Stability Criteria for Cascaded Nonlinear Stochastic Systems Admitting Not Necessarily Unbounded Decay Rate. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8616-8622.	0.4	4
45	Sum-separable Lyapunov functions for networks of ISS systems: A gain function approach. , 2015, , .		4
46	A Lyapunov approach to iISS and iNSS for stochastic systems in path-wise probability. , 2015, , .		4
47	Integral input-to-state stabilization by stochastic noise generated in bounded regions. , 2015, , .		4
48	Stability of systems coupled through noisy mediums. , 2016, , .		4
49	An intuitive modification of max-separable Lyapunov functions to cover non-ISS systems. Automatica, 2019, 107, 518-525.	5.0	4
50	Asymptotic and tracking guarantees in interval observer design for systems with unmeasured polytopic nonlinearities. IFAC-PapersOnLine, 2020, 53, 5010-5015.	0.9	4
51	Nonlinear generalization of scaled ?? control: global robustification against nonlinearly bounded uncertainties. International Journal of Robust and Nonlinear Control, 2004, 14, 1433-1467.	3.7	3
52	Relationships Between Subclasses of Integral Input-to-State Stability. IEEE Transactions on Automatic Control, 2017, 62, 2476-2482.	5.7	3
53	A new formulation of small-gain theorem without imposing strong iISS with respect to Disturbances on components. , 2017, , .		3
54	An Implicit Function Approach to Lyapunov functions for Interconnections Containing Non-ISS Components. IFAC-PapersOnLine, 2018, 51, 254-259.	0.9	3

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55	A Reduced-Order Controller Design for Nonlinear Systems with Uncertainties and Disturbances. European Journal of Control, 2004, 10, 207-222.	2.6	2
56	Construction of iISS Lyapunov functions for interconnected parabolic systems. , 2015, , .		2
57	Technical Committee on Nonlinear Systems and Control [Technical Activities]. IEEE Control Systems, 2016, 36, 17-18.	0.8	2
58	A geometrical formulation to unify construction of Lyapunov functions for interconnected iISS systems. Annual Reviews in Control, 2019, 48, 195-208.	7.9	2
59	Chamfering Max-Separable Lyapunov Functions to Accept Non-ISS in Interconnected Systems. , 2019, , .		2
60	Signed Small-Gain Criteria Amenable to Asymmetry with Respect to Equilibria in Establishing iISS of Networks. , 2020, , .		2
61	A two-phase approach to stability of networks given in iISS framework: Utilization of a matrix-like criterion. , 2013, , .		1
62	Lower-power Lyapunov functions for networks of integral input-to-state stable systems. , 2016, , .		1
63	Stochastic Stability via Lyapunov Functions without Differentiability at Supposed Equilibria**This work was partially supported by Grant-in-Aid for Scientific Research (B) of KAKENHI (15H04022).. IFAC-PapersOnLine, 2016, 49, 321-326.	0.9	1
64	Allowing Nonlinear Stability Margins in Interconnection of iISS Dissipation Inequalities**The work was supported in part by JSPS KAKENHI Grant Number 26420422.. IFAC-PapersOnLine, 2016, 49, 921-926.	0.9	1
65	Allowing vanishing stability margins in preservation of (i)ISS dissipation inequalities by scaling. , 2016, , .		1
66	Lyapunov Functions to Avoid Squashed Sublevel Sets for Interconnections Containing Non-ISS Components * *The work was supported in part by JSPS KAKENHI Grant Number 26420422.. IFAC-PapersOnLine, 2017, 50, 7427-7432.	0.9	1
67	Path-Wise Bounds and iISS of Nonlinear Systems Exposed to Global Stochastic Noise * *The work was supported in part by JSPS KAKENHI Grant Number 26420422.. IFAC-PapersOnLine, 2017, 50, 7433-7438.	0.9	1
68	Relaxing growth rate assumption for integral input-to-state stability of cascade systems. , 2017, , .		1
69	Adaptable iISS Small-Gain Formulation and its Application to Observer-Based Output Feedback Design. , 2018, , .		1
70	Integral Input-to-State Stability of Cascaded Systems and Observer-Based Feedback Design. , 2018, , .		1
71	A Closed Form Expression of Nonlinear Scalings for Lyapunov Functions of ISS Networks. IFAC-PapersOnLine, 2019, 52, 544-549.	0.9	1
72	Strong Integral Input-to-State Stability of Nonlinear Networks through Balancing Kinetics. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
73	A cyclic small-gain condition and an equivalent matrix-like criterion for iISS networks. , 2012, , .		0
74	Construction of Lyapunov Functionals for Networks of Coupled Delay Differential and Continuous-Time Difference Equations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 6800-6805.	0.4	0
75	A Lyapunov-Krasovskii Methodology for a Class of Large-Scale Systems with Neutral-type Delays in an iISS Framework. Advances in Delays and Dynamics, 2016, , 205-223.	0.4	0
76	Convergence of stochastic processes in the presence of disturbances: iISS/iSS and their cascades. , 2017, , .		0
77	A Smooth Construction of ISS Lyapunov Functions for Interconnected Systems. , 2018, , .		0
78	Bypassing Disturbance Separability in Verifying Integral Input-to-State Stability of Cascade Systems. , 2018, , .		0
79	A Glimpse on Recent Educational Activities in the Nonlinear Control Field. IFAC-PapersOnLine, 2019, 52, 196-199.	0.9	0
80	A Fusion of Max- and Sum-Separable Lyapunov Functions Capable of Addressing iISS in Networks. , 2019, , .		0
81	A Left Eigenvector Producing a Smooth Lyapunov Function of ISS Networks. Lecture Notes in Control and Information Sciences, 2019, , 247-268.	1.0	0
82	Smaller and negative exponents in Lyapunov functions for interconnected iISS systems. IFAC-PapersOnLine, 2020, 53, 6287-6292.	0.9	0
83	Output feedback disturbance attenuation with robustness to nonlinear uncertain dynamics via state-dependent scaling. , 0, , .		0