Georges Bastin

List of Publications by Year
in descending order

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44 papers	2,298 citations	377584 21 h-index	425179 34 g-index
44 all docs	44 docs citations	44 times ranked	1002 citing authors

#	Article	IF	Citations
1	Feedforward boundary control of 2<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.svg"><mml:mo>Ã—</mml:mo></mml:math>2 nonlinear hyperbolic systems with application to Saint-Venant equations. European Journal of Control, 2021, 57, 41-53.	1.6	13
2	Boundary Control of 1-D Hyperbolic Systems. , 2021, , 150-157.		0
3	Input-to-State Stability in sup norms for hyperbolic systems with boundary disturbances. Nonlinear Analysis: Theory, Methods & Applications, 2021, 208, 112300.	0.6	8
4	Metabolic Flux Analysis of VERO Cells under Various Culture Conditions. Processes, 2021, 9, 2097.	1.3	4
5	Boundary Control of 1-D Hyperbolic Systems. , 2020, , 1-8.		0
6	Inference of dynamic macroscopic models of cell metabolism based on elementary flux modes analysis. Biochemical Engineering Journal, 2019, 151, 107325.	1.8	10
7	Exponential boundary feedback stabilization of a shock steady state for the inviscid Burgers equation. Mathematical Models and Methods in Applied Sciences, 2019, 29, 271-316.	1.7	15
8	Boundary feedback stabilization of hydraulic jumps. IFAC Journal of Systems and Control, 2019, 7, 100026.	1.1	5
9	Exponential stability of PI control for Saint-Venant equations with a friction term. Methods and Applications of Analysis, 2019, 26, 101-112.	0.1	4
10	A quadratic Lyapunov function for hyperbolic densityâ€“velocity systems with nonuniform steady states. Systems and Control Letters, 2017, 104, 66-71.	1.3	23
11	Dynamic metabolic flux analysis of underdetermined and overdetermined metabolic networks. IFAC-PapersOnLine, 2016, 49, 318-323.	0.5	3
12	Application of Dynamic Metabolic Flux Convex Analysis to CHO-DXB11 Cell Fed-batch Cultures. IFAC-PapersOnLine, 2016, 49, 466-471.	0.5	3
13	Stability and Boundary Stabilization of 1-D Hyperbolic Systems. Progress in Nonlinear Differential Equations and Their Application, 2016, , .	0.4	237
14	Systems of Linear Balance Laws. Progress in Nonlinear Differential Equations and Their Application, 2016, , 159-201.	0.4	0
15	Dynamic metabolic flux analysis using a convex analysis approach: Application to hybridoma cell cultures in perfusion. Biotechnology and Bioengineering, 2016, 113, 1102-1112.	1.7	13
16	Systems of Two Linear Conservation Laws. Progress in Nonlinear Differential Equations and Their Application, 2016, , 55-83.	0.4	0
17	Modeling of the ComRS Signaling Pathway Reveals the Limiting Factors Controlling Competence in Streptococcus thermophilus. Frontiers in Microbiology, 2015, 6, 1413.	1.5	36
18	Stability of linear density-flow hyperbolic systems under PI boundary control. Automatica, 2015, 53, 37-42.	3.0	55

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19	Metabolic Flux Analysis of hybridoma cells: underdetermined network and influence of batch and perfusion operating modes.. IFAC-PapersOnLine, 2015, 48, 464-469.	0.5	0
20	On stability analysis of genetic regulatory networks represented by delay-differential equations. IFAC-PapersOnLine, 2015, 48, 453-457.	0.5	0
21	Dissipative Boundary Conditions for One-Dimensional Quasi-linear Hyperbolic Systems: Lyapunov Stability for the C^1-Norm. SIAM Journal on Control and Optimization, 2015, 53, 1464-1483.	1.1	50
22	Stability analysis of switching hyperbolic systems: the example of SMB chromatography. , 2014, , .		2
23	Local Exponential H^2 Stabilization of a $2imes2$ Quasilinear Hyperbolic System Using Backstepping. SIAM Journal on Control and Optimization, 2013, 51, 2005-2035.	1.1	257
24	Exponential stability of networks of density-flow conservation laws under PI boundary control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 221-226.	0.4	11
25	Collocated output-feedback stabilization of a 2 × 2 quasilinear hyperbolic system using backstepping. , 2012, , .		22
26	Lyapunov exponential stability of 1-D linear hyperbolic systems of balance laws. Automatica, 2012, 48, 109-114.	3.0	116
27	On boundary feedback stabilization of non-uniform linear hyperbolic systems over a bounded interval. Systems and Control Letters, 2011, 60, 900-906.	1.3	75
28	Fast computation of minimal elementary decompositions of metabolic flux vectors. Automatica, 2011, 47, 1255-1259.	3.0	38
29	Local exponential H² stabilization of a 2 × 2 quasilinear hyperbolic system using backstepping. , 2011, , .		21
30	A detailed metabolic flux analysis of an underdetermined network of CHO cells. Journal of Biotechnology, 2010, 150, 497-508.	1.9	60
31	On extremum seeking in bioprocesses with multivalued cost functions. Biotechnology Progress, 2009, 25, 683-689.	1.3	34
32	On Lyapunov stability of linearised Saint-Venant equations for a sloping channel. Networks and Heterogeneous Media, 2009, 4, 177-187.	0.5	90
33	Robust boundary control of systems of conservation laws. Mathematics of Control, Signals, and Systems, 2008, 20, 173-197.	1.4	99
34	Dissipative Boundary Conditions for One-Dimensional Nonlinear Hyperbolic Systems. SIAM Journal on Control and Optimization, 2008, 47, 1460-1498.	1.1	200
35	A Strict Lyapunov Function for Boundary Control of Hyperbolic Systems of Conservation Laws. IEEE Transactions on Automatic Control, 2007, 52, 2-11.	3.6	314
36	Identification of reaction networks for bioprocesses: determination of a partially unknown pseudo-stoichiometric matrix. Bioprocess and Biosystems Engineering, 2005, 27, 293-301.	1.7	43

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37	On the estimation of the pseudo-stoichiometric matrix for macroscopic mass balance modelling of biotechnological processes. Mathematical Biosciences, 2005, 193, 51-77.	0.9	62
38	Microcarrier Culture of Lepidopteran Cell Lines: Implications for Growth and Recombinant Protein Production. Biotechnology Progress, 2002, 18, 1345-1355.	1.3	23
39	Mass balance modeling of vanillin production from vanillic acid by cultures of the fungusPycnoporus cinnabarinus in bioreactors. , 1999, 65, 558-571.		16
40	Optimizing bioreactors by extremum seeking. International Journal of Adaptive Control and Signal Processing, 1999, 13, 651-669.	2.3	160
41	Output stabilization of square nonlinear systems. Automatica, 1997, 33, 1571-1577.	3.0	7
42	Adaptive control of nonlinear systems with nonlinear parameterization. Systems and Control Letters, 1996, 27, 87-97.	1.3	36
43	A case study of adaptive nonlinear regulation of fed-batch biological reactors. Automatica, 1995, 31, 55-65.	3.0	78
44	ESPION: An expert system for system identification. Automatica, 1990, 26, 85-95.	3.0	55