

# Christophe Prieur

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

138  
papers

1,914  
citations

25  
h-index

38  
g-index

146  
ext. papers

2,416  
ext. citations

3.3  
avg, IF

5.85  
L-index

#	Paper	IF	Citations
138	ISS-Lyapunov functions for time-varying hyperbolic systems of balance laws. <i>Mathematics of Control, Signals, and Systems</i> , <b>2012</b> , 24, 111-134	1.3	98
137	Robust boundary control of systems of conservation laws. <i>Mathematics of Control, Signals, and Systems</i> , <b>2008</b> , 20, 173-197	1.3	85
136	Strict Lyapunov Functions for semilinear parabolic partial differential equations. <i>Mathematical Control and Related Fields</i> , <b>2011</b> , 1, 231-250	1.5	76
135	Uniting Local and Global Controllers with Robustness to Vanishing Noise. <i>Mathematics of Control, Signals, and Systems</i> , <b>2001</b> , 14, 143-172	1.3	68
134	Boundary Control of Open Channels With Numerical and Experimental Validations. <i>IEEE Transactions on Control Systems Technology</i> , <b>2008</b> , 16, 1252-1264	4.8	65
133	Boundary observers for linear and quasi-linear hyperbolic systems with application to flow control. <i>Automatica</i> , <b>2013</b> , 49, 3180-3188	5.7	62
132	Observer-based feedback stabilization of linear systems with event-triggered sampling and dynamic quantization. <i>Systems and Control Letters</i> , <b>2016</b> , 94, 46-56	2.4	59
131	Input-to-State Stability of Infinite-Dimensional Systems: Recent Results and Open Questions. <i>SIAM Review</i> , <b>2020</b> , 62, 529-614	7.4	59
130	Event-based control of linear hyperbolic systems of conservation laws. <i>Automatica</i> , <b>2016</b> , 70, 275-287	5.7	58
129	Hybrid Feedback Control and Robust Stabilization of Nonlinear Systems. <i>IEEE Transactions on Automatic Control</i> , <b>2007</b> , 52, 2103-2117	5.9	54
128	Stabilization of linear impulsive systems through a nearly-periodic reset. <i>Nonlinear Analysis: Hybrid Systems</i> , <b>2013</b> , 7, 4-15	4.5	53
127	Feedback Stabilization of a 1-D Linear Reaction-Diffusion Equation With Delay Boundary Control. <i>IEEE Transactions on Automatic Control</i> , <b>2019</b> , 64, 1415-1425	5.9	49
126	LQ-based event-triggered controller co-design for saturated linear systems. <i>Automatica</i> , <b>2016</b> , 74, 47-54	5.7	46
125	Lyapunov-based hybrid loops for stability and performance of continuous-time control systems. <i>Automatica</i> , <b>2013</b> , 49, 577-584	5.7	36
124	Stability and Observer Design for Lur $\ddot{e}$ Systems with Multivalued, Nonmonotone, Time-Varying Nonlinearities and State Jumps. <i>SIAM Journal on Control and Optimization</i> , <b>2014</b> , 52, 3639-3672	1.9	36
123	Stability of Switched Linear Hyperbolic Systems by Lyapunov Techniques. <i>IEEE Transactions on Automatic Control</i> , <b>2014</b> , 59, 2196-2202	5.9	34
122	Event-Based Boundary Control of a Linear $2 \times 2$ Hyperbolic System via Backstepping Approach. <i>IEEE Transactions on Automatic Control</i> , <b>2018</b> , 63, 2686-2693	5.9	33

121	Wave Equation With Cone-Bounded Control Laws. <i>IEEE Transactions on Automatic Control</i> , <b>2016</b> , 61, 3452-3463	5.9	33
120	Stability Analysis and Stabilization of Systems With Input Backlash. <i>IEEE Transactions on Automatic Control</i> , <b>2014</b> , 59, 488-494	5.9	33
119	Stochastic stability of Markov jump hyperbolic systems with application to traffic flow control. <i>Automatica</i> , <b>2017</b> , 86, 29-37	5.7	32
118	Uniting Two Control Lyapunov Functions for Affine Systems. <i>IEEE Transactions on Automatic Control</i> , <b>2010</b> , 55, 1923-1927	5.9	32
117	Necessary and Sufficient Conditions on the Exponential Stability of Positive Hyperbolic Systems. <i>IEEE Transactions on Automatic Control</i> , <b>2017</b> , 62, 3610-3617	5.9	31
116	Stability analysis for linear systems with input backlash through sufficient LMI conditions. <i>Automatica</i> , <b>2010</b> , 46, 1911-1915	5.7	30
115	Stabilization of a 1-D tank containing a fluid modeled by the shallow water equations. <i>Systems and Control Letters</i> , <b>2004</b> , 52, 167-178	2.4	28
114	Global Stabilization of a Korteweg–De Vries Equation With Saturating Distributed Control. <i>SIAM Journal on Control and Optimization</i> , <b>2017</b> , 55, 1452-1480	1.9	25
113	An LMI condition for the robustness of constant-delay linear predictor feedback with respect to uncertain time-varying input delays. <i>Automatica</i> , <b>2019</b> , 109, 108551	5.7	25
112	Event-triggered sampling algorithms based on a Lyapunov function <b>2011</b> ,		25
111	PI boundary control of linear hyperbolic balance laws with stabilization of ARZ traffic flow models. <i>Systems and Control Letters</i> , <b>2019</b> , 123, 85-91	2.4	25
110	Using Luenberger observers and dwell-time logic for feedback hybrid loops in continuous-time control systems. <i>International Journal of Robust and Nonlinear Control</i> , <b>2013</b> , 23, 1065-1086	3.6	22
109	Tikhonov theorem for linear hyperbolic systems. <i>Automatica</i> , <b>2015</b> , 57, 1-10	5.7	21
108	Well-Posedness and Output Regulation for Implicit Time-Varying Evolution Variational Inequalities. <i>SIAM Journal on Control and Optimization</i> , <b>2018</b> , 56, 751-781	1.9	20
107	A Nonsmooth Hybrid Invariance Principle Applied to Robust Event-Triggered Design. <i>IEEE Transactions on Automatic Control</i> , <b>2019</b> , 64, 2061-2068	5.9	19
106	Switching Rules for Stabilization of Linear Systems of Conservation Laws. <i>SIAM Journal on Control and Optimization</i> , <b>2015</b> , 53, 1599-1624	1.9	17
105	New formulation of predictors for finite-dimensional linear control systems with input delay. <i>Systems and Control Letters</i> , <b>2018</b> , 113, 9-16	2.4	17
104	A hybrid scheme for reducing peaking in high-gain observers for a class of nonlinear systems. <i>Automatica</i> , <b>2016</b> , 72, 138-146	5.7	17

103	Quasi-Optimal Robust Stabilization of Control Systems. <i>SIAM Journal on Control and Optimization</i> , <b>2006</b> , 45, 1875-1897	1.9	17
102	Observer Design for Unilaterally Constrained Lagrangian Systems: A Passivity-Based Approach. <i>IEEE Transactions on Automatic Control</i> , <b>2016</b> , 61, 2386-2401	5.9	16
101	Stability Analysis of a $\{\text{text}\{2\}\times\{\text{text}\{2\}\}$ Linear Hyperbolic System With a Sampled-Data Controller via Backstepping Method and Looped-Functionals. <i>IEEE Transactions on Automatic Control</i> , <b>2019</b> , 64, 1718-1725	5.9	16
100	Cone-bounded feedback laws for m-dissipative operators on Hilbert spaces. <i>Mathematics of Control, Signals, and Systems</i> , <b>2017</b> , 29, 1	1.3	15
99	Stability analysis for reset systems with input saturation <b>2007</b> ,		15
98	Stability Analysis of Output Feedback Control Systems With a Memory-Based Event-Triggering Mechanism. <i>IEEE Transactions on Automatic Control</i> , <b>2017</b> , 62, 6625-6632	5.9	14
97	Robustness to In-Domain Viscous Damping of a Collocated Boundary Adaptive Feedback Law for an Antidamped Boundary Wave PDE. <i>IEEE Transactions on Automatic Control</i> , <b>2019</b> , 64, 3284-3299	5.9	13
96	Stability notions for a class of nonlinear systems with measure controls. <i>Mathematics of Control, Signals, and Systems</i> , <b>2015</b> , 27, 245-275	1.3	12
95	Fresh Air Fraction Control in Engines Using Dynamic Boundary Stabilization of LPV Hyperbolic Systems. <i>IEEE Transactions on Control Systems Technology</i> , <b>2015</b> , 23, 963-974	4.8	12
94	Feedback Stabilization of a Class of Diagonal Infinite-Dimensional Systems With Delay Boundary Control. <i>IEEE Transactions on Automatic Control</i> , <b>2021</b> , 66, 105-120	5.9	12
93	Stabilization of a linear Korteweg-de Vries equation with a saturated internal control <b>2015</b> ,		11
92	Relaxed Persistent Flow/Jump Conditions for Uniform Global Asymptotic Stability. <i>IEEE Transactions on Automatic Control</i> , <b>2014</b> , 59, 2766-2771	5.9	11
91	PI Regulation of a Reaction-Diffusion Equation With Delayed Boundary Control. <i>IEEE Transactions on Automatic Control</i> , <b>2021</b> , 66, 1573-1587	5.9	11
90	Boundary feedback control of linear hyperbolic systems: Application to the Saint-Venant-Exner equations. <i>Automatica</i> , <b>2018</b> , 89, 44-51	5.7	10
89	Backstepping observer based-control for an anti-damped boundary wave PDE in presence of in-domain viscous damping <b>2016</b> ,		10
88	Lp-asymptotic stability analysis of a 1D wave equation with a nonlinear damping. <i>Journal of Differential Equations</i> , <b>2020</b> , 269, 8107-8131	2.1	9
87	Backstepping Control of a Wave PDE With Unstable Source Terms and Dynamic Boundary <b>2018</b> , 2, 459-464		9
86	Control of a clamped-free beam by a piezoelectric actuator. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , <b>2006</b> , 12, 545-563	1	9

85	Exponential input-to-state stabilization of a class of diagonal boundary control systems with delay boundary control. <i>Systems and Control Letters</i> , <b>2020</b> , 138, 104651	2.4	9
84	LMI-Based Reset $\mathcal{H}_{\infty}$ Design for Linear Continuous-Time Plants. <i>IEEE Transactions on Automatic Control</i> , <b>2016</b> , 61, 4157-4163	5.9	9
83	Stability Analysis of Dissipative Systems Subject to Nonlinear Damping via Lyapunov Techniques. <i>IEEE Transactions on Automatic Control</i> , <b>2020</b> , 65, 2139-2146	5.9	9
82	Analysis and Synthesis of Reset Control Systems. <i>Foundations and Trends in Systems and Control</i> , <b>2018</b> , 6, 117-338	4	9
81	Experimental validation of a Lyapunov-based controller for the plasma safety factor and plasma pressure in the TCV tokamak. <i>Nuclear Fusion</i> , <b>2018</b> , 58, 056011	3.3	8
80	Control Law Realification for the Feedback Stabilization of a Class of Diagonal Infinite-Dimensional Systems With Delay Boundary Control <b>2019</b> , 3, 930-935		8
79	Fluid-flow modeling and stability analysis of communication networks. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 4534-4539	0.7	8
78	Guaranteed stability for nonlinear systems by means of a hybrid loop. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2010</b> , 43, 72-77		8
77	An optimisation approach for stability analysis and controller synthesis of linear hyperbolic systems. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , <b>2016</b> , 22, 1236-1263	1	8
76	Event-based stabilization of linear systems of conservation laws using a dynamic triggering condition. <i>IFAC-PapersOnLine</i> , <b>2016</b> , 49, 362-367	0.7	8
75	High-Gain Observer Design for a Class of Hyperbolic Systems of Balance Laws <b>2018</b> ,		8
74	Local Exponential Stabilization of Semi-Linear Hyperbolic Systems by Means of a Boundary Feedback Control <b>2018</b> , 2, 55-60		7
73	Singular Perturbation Approximation of Linear Hyperbolic Systems of Balance Laws. <i>IEEE Transactions on Automatic Control</i> , <b>2016</b> , 61, 3031-3037	5.9	7
72	Stability analysis of a singularly perturbed coupled ODE-PDE system <b>2015</b> ,		7
71	Well-posedness and stability of a 1D wave equation with saturating distributed input <b>2014</b> ,		7
70	Singular perturbation approximation by means of a $H_2$ Lyapunov function for linear hyperbolic systems. <i>Systems and Control Letters</i> , <b>2016</b> , 88, 24-31	2.4	6
69	Finite-dimensional observer-based boundary stabilization of reaction-diffusion equations with either a Dirichlet or Neumann boundary measurement. <i>Automatica</i> , <b>2022</b> , 135, 109955	5.7	6
68	Robustness of an adaptive output feedback for an anti-damped boundary wave PDE in presence of in-domain viscous damping <b>2016</b> ,		6

67	Robustness of constant-delay predictor feedback for in-domain stabilization of reaction-diffusion PDEs with time- and spatially-varying input delays. <i>Automatica</i> , <b>2021</b> , 123, 109347	5.7	6
66	On L <sup>2</sup> -stabilization of diagonal semilinear hyperbolic systems by saturated boundary control. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , <b>2020</b> , 26, 23	1	5
65	Event-based controller synthesis by bounding methods. <i>European Journal of Control</i> , <b>2015</b> , 26, 12-21	2.5	5
64	Event-triggered algorithms for continuous-time systems based on reachability analysis <b>2013</b> ,		5
63	Hybrid high-gain observers without peaking for planar nonlinear systems <b>2012</b> ,		5
62	Approximate controllability of a reaction-diffusion system. <i>Systems and Control Letters</i> , <b>2008</b> , 57, 1048-1057	5.7	5
61	Distributed Control of Coupled Inhomogeneous Diffusion in Tokamak Plasmas. <i>IEEE Transactions on Control Systems Technology</i> , <b>2019</b> , 27, 443-450	4.8	5
60	Local Stabilization of an Unstable Parabolic Equation via Saturated Controls. <i>IEEE Transactions on Automatic Control</i> , <b>2021</b> , 66, 2162-2176	5.9	5
59	High-Gain Observer Design for a Class of Quasi-Linear Integro-Differential Hyperbolic Systems - Application to an Epidemic Model. <i>IEEE Transactions on Automatic Control</i> , <b>2021</b> , 1-1	5.9	5
58	<b>2018</b> ,		5
57	Boundary control synthesis for hyperbolic systems: A singular perturbation approach <b>2014</b> ,		4
56	Finite-dimensional observer-based PI regulation control of a reaction-diffusion equation. <i>IEEE Transactions on Automatic Control</i> , <b>2021</b> , 1-1	5.9	4
55	Quadratic Optimal Control of Linear Complementarity Systems: First-Order Necessary Conditions and Numerical Analysis. <i>IEEE Transactions on Automatic Control</i> , <b>2020</b> , 65, 2743-2750	5.9	4
54	Semi-global stabilization by an output feedback law from a hybrid state controller. <i>Automatica</i> , <b>2016</b> , 74, 90-98	5.7	4
53	Boundary Control Design for Linear Conservation Laws in the Presence of Energy-Bounded Measurement Noise <b>2018</b> ,		4
52	Asymptotic Stabilization of Some Finite and Infinite Dimensional Systems by Means of Dynamic Event-Triggered Output Feedbacks. <i>Lecture Notes in Control and Information Sciences</i> , <b>2017</b> , 201-230	0.5	3
51	A region-dependent gain condition for asymptotic stability. <i>Automatica</i> , <b>2015</b> , 52, 309-316	5.7	3
50	Effect of time scales on stability of coupled systems involving the wave equation <b>2017</b> ,		3

49	Predictor-based output feedback stabilization of an input delayed parabolic PDE with boundary measurement. <i>Automatica</i> , <b>2022</b> , 137, 110115	5.7	3
48	Singular Perturbation Analysis of a Coupled System Involving the Wave Equation. <i>IEEE Transactions on Automatic Control</i> , <b>2020</b> , 65, 4846-4853	5.9	3
47	Output memory-based event-triggered control <b>2016</b> ,		3
46	Global sensitivity analysis for the boundary control of an open channel. <i>Mathematics of Control, Signals, and Systems</i> , <b>2016</b> , 28, 1	1.3	3
45	High-Gain Observer Design for Some Semilinear Reaction-Diffusion Systems: A Transformation-Based Approach <b>2021</b> , 5, 629-634		3
44	Regional stability and stabilization of a class of linear hyperbolic systems with nonlinear quadratic dynamic boundary conditions. <i>European Journal of Control</i> , <b>2018</b> , 43, 46-56	2.5	3
43	Event-based stabilizing controller using a state observer <b>2015</b> ,		2
42	Robustness of Constant-Delay Predictor Feedback with Respect to Distinct Uncertain Time-Varying Input Delays. <i>IFAC-PapersOnLine</i> , <b>2020</b> , 53, 7677-7682	0.7	2
41	Transport effect of COVID-19 pandemic in France		2
40	Magnetic Field Gradient-Based EKF for Velocity Estimation in Indoor Navigation. <i>Sensors</i> , <b>2020</b> , 20,	3.8	2
39	Improving Inertial Velocity Estimation Through Magnetic Field Gradient-based Extended Kalman Filter <b>2019</b> ,		2
38	Regional Stabilization of Input-Delayed Uncertain Nonlinear Polynomial Systems. <i>IEEE Transactions on Automatic Control</i> , <b>2020</b> , 65, 2300-2307	5.9	2
37	In-domain stabilization of block diagonal infinite-dimensional systems with time-varying input delays. <i>IEEE Transactions on Automatic Control</i> , <b>2021</b> , 1-1	5.9	2
36	Boundary control design for conservation laws in the presence of measurement disturbances. <i>Mathematics of Control, Signals, and Systems</i> , <b>2021</b> , 33, 49-77	1.3	2
35	Using a high-gain observer for a hybrid output feedback: Finite-time and asymptotic cases for SISO affine systems <b>2014</b> ,		1
34	Dynamic boundary control synthesis of coupled PDE-ODEs for communication networks under fluid flow modeling <b>2017</b> ,		1
33	Global sensitivity analysis for the boundary control of an open channel <b>2014</b> ,		1
32	Local output feedback stabilization of a Reaction-Diffusion equation with saturated actuation. <i>IEEE Transactions on Automatic Control</i> , <b>2022</b> , 1-1	5.9	1



31	Proportional Integral Regulation Control of a One-Dimensional Semilinear Wave Equation. <i>SIAM Journal on Control and Optimization</i> , <b>2022</b> , 60, 1-21	1.9	1
30	Inertial Velocity Estimation for Indoor Navigation Through Magnetic Gradient-based EKF and LSTM Learning Model <b>2020</b> ,		1
29	Design of Saturated Boundary Control for Hyperbolic Systems. <i>IFAC-PapersOnLine</i> , <b>2020</b> , 53, 5342-5347	0.7	1
28	Exponential Stability for Hybrid Systems with Saturations179-212		1
27	Boundary observer design for cascaded ODE $\mathbb{H}$ Hyperbolic PDE systems: A matrix inequalities approach. <i>Automatica</i> , <b>2020</b> , 119, 109027	5.7	1
26	Local Proportional-Integral Boundary Feedback Stabilization for Quasilinear Hyperbolic Systems of Balance Laws. <i>SIAM Journal on Control and Optimization</i> , <b>2020</b> , 58, 2143-2170	1.9	1
25	Global stabilization of a Korteweg-de Vries equation with a distributed control saturated in L2-norm. <i>IFAC-PapersOnLine</i> , <b>2016</b> , 49, 122-127	0.7	1
24	Design of saturated controls for an unstable parabolic PDE. <i>IFAC-PapersOnLine</i> , <b>2019</b> , 52, 310-315	0.7	1
23	Input shaping for infinite dimensional systems with application on oil well drilling <b>2018</b> ,		1
22	Contributions to the Problem of High-Gain Observer Design for Hyperbolic Systems. <i>Lecture Notes in Control and Information Sciences</i> , <b>2022</b> , 109-134	0.5	1
21	Synchronization of Identical Boundary-Actuated Semilinear Infinite-Dimensional Systems <b>2022</b> , 6, 1322-1327		1
20	Delayed stabilization of the Kortewegde Vries equation on a star-shaped network. <i>Mathematics of Control, Signals, and Systems</i> ,1	1.3	1
19	Leader-Follower Synchronization of a Network of Boundary-Controlled Parabolic Equations With In-Domain Coupling <b>2022</b> , 6, 2006-2011		0
18	Optimal observer-based output feedback controller for traffic congestion with bottleneck. <i>International Journal of Robust and Nonlinear Control</i> , <b>2021</b> , 31, 7087-7106	3.6	0
17	High-gain observer for 3 $\mathbb{B}$ linear heterodirectional hyperbolic systems. <i>Automatica</i> , <b>2021</b> , 129, 109607	5.7	0
16	Nonstandard use of anti-windup loop for systems with input backlash. <i>IFAC Journal of Systems and Control</i> , <b>2018</b> , 6, 33-42	0.9	0
15	Parameter Identification of a Linear Wave Equation From Experimental Boundary Data. <i>IEEE Transactions on Control Systems Technology</i> , <b>2021</b> , 29, 2166-2179	4.8	0
14	BiLSTM Network-Based Extended Kalman Filter for Magnetic Field Gradient Aided Indoor Navigation. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1	4	0



13	Output feedback stabilization of reaction-diffusion PDEs with a non-located boundary condition. <i>Systems and Control Letters</i> , <b>2022</b> , 164, 105238	2.4	o
12	Design of saturated boundary control for hyperbolic systems with in-domain disturbances. <i>Automatica</i> , <b>2022</b> , 142, 110346	5.7	o
11	A Glimpse on Recent Educational Activities in the Nonlinear Control Field. <i>IFAC-PapersOnLine</i> , <b>2019</b> , 52, 196-199	0.7	
10	Enlarging the basin of attraction by a uniting output feedback controller. <i>Automatica</i> , <b>2018</b> , 90, 73-80	5.7	
9	Goal-oriented error estimation for parameter-dependent nonlinear problems. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , <b>2018</b> , 52, 705-728	1.8	
8	Stabilization of the Wave Equation by the Mean of a Saturating Dirichlet Feedback. <i>IFAC-PapersOnLine</i> , <b>2021</b> , 54, 442-447	0.7	
7	Velocity Stabilization of a Wave Equation with a Nonlinear Dynamic Boundary Condition. <i>IEEE Transactions on Automatic Control</i> , <b>2021</b> , 1-1	5.9	
6	Singular Perturbation Approach for Linear Coupled ODE-PDE Systems. <i>Advances in Delays and Dynamics</i> , <b>2019</b> , 3-17	0.3	
5	Neumann trace tracking of a constant reference input for 1-D boundary controlled heat-like equations with delay. <i>IFAC-PapersOnLine</i> , <b>2020</b> , 53, 7716-7721	0.7	
4	Stability analysis of a 1D wave equation with a nonmonotone distributed damping. <i>IFAC-PapersOnLine</i> , <b>2019</b> , 52, 36-41	0.7	
3	Boundary Feedback Stabilization of Freeway Traffic Networks: ISS Control and Experiments. <i>IEEE Transactions on Control Systems Technology</i> , <b>2021</b> , 1-12	4.8	
2	Output Feedback Control of a Cascade System of Linear Korteweg--de Vries Equations. <i>SIAM Journal on Control and Optimization</i> , <b>2021</b> , 59, 2955-2976	1.9	
1	Output Feedback Stabilization of a Reaction-Diffusion PDE in the Presence of Saturations of the Input and Its Time Derivatives. <i>Advances in Delays and Dynamics</i> , <b>2022</b> , 45-68	0.3	