

# Christophe Prieur

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4529053/publications.pdf>

Version: 2024-02-01

141  
papers

2,803  
citations

186265

28  
h-index

223800

46  
g-index

146  
all docs

146  
docs citations

146  
times ranked

1189  
citing authors

#	ARTICLE	IF	CITATIONS
1	Local Output Feedback Stabilization of a Reaction-Diffusion Equation With Saturated Actuation. IEEE Transactions on Automatic Control, 2023, 68, 564-571.	5.7	7
2	Boundary output feedback stabilisation of a class of reaction-diffusion PDEs with delayed boundary measurement. International Journal of Control, 2023, 96, 2285-2295.	1.9	7
3	Boundary Feedback Stabilization of Freeway Traffic Networks: ISS Control and Experiments. IEEE Transactions on Control Systems Technology, 2022, 30, 997-1008.	5.2	2
4	High-Gain Observer Design for a Class of Quasi-Linear Integro-Differential Hyperbolic Systems Application to an Epidemic Model. IEEE Transactions on Automatic Control, 2022, 67, 292-303.	5.7	9
5	Contributions to the Problem of High-Gain Observer Design for Hyperbolic Systems. Lecture Notes in Control and Information Sciences, 2022, , 109-134.	1.0	3
6	Synchronization of Identical Boundary-Actuated Semilinear Infinite-Dimensional Systems. , 2022, 6, 1322-1327.		3
7	BiLSTM Network-Based Extended Kalman Filter for Magnetic Field Gradient Aided Indoor Navigation. IEEE Sensors Journal, 2022, 22, 4781-4789.	4.7	9
8	Finite-dimensional observer-based boundary stabilization of reaction-diffusion equations with either a Dirichlet or Neumann boundary measurement. Automatica, 2022, 135, 109955.	5.0	22
9	Leader-Follower Synchronization of a Network of Boundary-Controlled Parabolic Equations With In-Domain Coupling. , 2022, 6, 2006-2011.		4
10	Predictor-based output feedback stabilization of an input delayed parabolic PDE with boundary measurement. Automatica, 2022, 137, 110115.	5.0	22
11	Finite-Dimensional Observer-Based PI Regulation Control of a Reaction-Diffusion Equation. IEEE Transactions on Automatic Control, 2022, 67, 6143-6150.	5.7	8
12	Proportional Integral Regulation Control of a One-Dimensional Semilinear Wave Equation. SIAM Journal on Control and Optimization, 2022, 60, 1-21.	2.1	5
13	Delayed stabilization of the Korteweg-de Vries equation on a star-shaped network. Mathematics of Control, Signals, and Systems, 2022, 34, 559-605.	2.3	7
14	Output feedback stabilization of reaction-diffusion PDEs with a non-collocated boundary condition. Systems and Control Letters, 2022, 164, 105238.	2.3	5
15	Design of saturated boundary control for hyperbolic systems with in-domain disturbances. Automatica, 2022, 142, 110346.	5.0	5
16	Q-Learning-Based Noise Covariance Adaptation in Kalman Filter for MARG Sensors Attitude Estimation. , 2022, , .		2
17	Nonlinear boundary output feedback stabilization of reaction-diffusion equations. Systems and Control Letters, 2022, 166, 105301.	2.3	6
18	Stability analysis of reaction-diffusion PDEs coupled at the boundaries with an ODE. Automatica, 2022, 144, 110465.	5.0	3

#	ARTICLE	IF	CITATIONS
19	PI Regulation of a Reaction–Diffusion Equation With Delayed Boundary Control. IEEE Transactions on Automatic Control, 2021, 66, 1573-1587.	5.7	24
20	High-Gain Observer Design for Some Semilinear Reaction-Diffusion Systems: A Transformation-Based Approach. , 2021, 5, 629-634.		10
21	Local Stabilization of an Unstable Parabolic Equation via Saturated Controls. IEEE Transactions on Automatic Control, 2021, 66, 2162-2176.	5.7	17
22	Feedback Stabilization of a Class of Diagonal Infinite-Dimensional Systems With Delay Boundary Control. IEEE Transactions on Automatic Control, 2021, 66, 105-120.	5.7	25
23	Robustness of constant-delay predictor feedback for in-domain stabilization of reaction–diffusion PDEs with time- and spatially-varying input delays. Automatica, 2021, 123, 109347.	5.0	15
24	Output Feedback Control of a Cascade System of Linear Korteweg–de Vries Equations. SIAM Journal on Control and Optimization, 2021, 59, 2955-2976.	2.1	0
25	Optimal observer–based output feedback controller for traffic congestion with bottleneck. International Journal of Robust and Nonlinear Control, 2021, 31, 7087-7106.	3.7	4
26	High-gain observer for 3–3 linear heterodirectional hyperbolic systems. Automatica, 2021, 129, 109607.	5.0	7
27	Parameter Identification of a Linear Wave Equation From Experimental Boundary Data. IEEE Transactions on Control Systems Technology, 2021, 29, 2166-2179.	5.2	3
28	In-Domain Stabilization of Block Diagonal Infinite-Dimensional Systems With Time-Varying Input Delays. IEEE Transactions on Automatic Control, 2021, 66, 6017-6024.	5.7	3
29	Boundary control design for conservation laws in the presence of measurement disturbances. Mathematics of Control, Signals, and Systems, 2021, 33, 49-77.	2.3	2
30	Stabilization of the Wave Equation by the Mean of a Saturating Dirichlet Feedback. IFAC-PapersOnLine, 2021, 54, 442-447.	0.9	0
31	Velocity Stabilization of a Wave Equation with a Nonlinear Dynamic Boundary Condition. IEEE Transactions on Automatic Control, 2021, , 1-1.	5.7	0
32	Regional Stabilization of Input-Delayed Uncertain Nonlinear Polynomial Systems. IEEE Transactions on Automatic Control, 2020, 65, 2300-2307.	5.7	8
33	Stability Analysis of Dissipative Systems Subject to Nonlinear Damping via Lyapunov Techniques. IEEE Transactions on Automatic Control, 2020, 65, 2139-2146.	5.7	16
34	Quadratic Optimal Control of Linear Complementarity Systems: First-Order Necessary Conditions and Numerical Analysis. IEEE Transactions on Automatic Control, 2020, 65, 2743-2750.	5.7	10
35	Singular Perturbation Analysis of a Coupled System Involving the Wave Equation. IEEE Transactions on Automatic Control, 2020, 65, 4846-4853.	5.7	5
36	Boundary observer design for cascaded ODE – Hyperbolic PDE systems: A matrix inequalities approach. Automatica, 2020, 119, 109027.	5.0	9

#	ARTICLE	IF	CITATIONS
37	Input-to-State Stability of Infinite-Dimensional Systems: Recent Results and Open Questions. SIAM Review, 2020, 62, 529-614.	9.5	118
38	Local Proportional-Integral Boundary Feedback Stabilization for Quasilinear Hyperbolic Systems of Balance Laws. SIAM Journal on Control and Optimization, 2020, 58, 2143-2170.	2.1	5
39	Magnetic Field Gradient-Based EKF for Velocity Estimation in Indoor Navigation. Sensors, 2020, 20, 5726.	3.8	12
40	On $L^{\infty}$ stabilization of diagonal semilinear hyperbolic systems by saturated boundary control. ESAIM - Control, Optimisation and Calculus of Variations, 2020, 26, 23.	1.3	6
41	L-asymptotic stability analysis of a 1D wave equation with a nonlinear damping. Journal of Differential Equations, 2020, 269, 8107-8131.	2.2	11
42	Exponential input-to-state stabilization of a class of diagonal boundary control systems with delay boundary control. Systems and Control Letters, 2020, 138, 104651.	2.3	13
43	Design of Saturated Boundary Control for Hyperbolic Systems. IFAC-PapersOnLine, 2020, 53, 5342-5347.	0.9	1
44	Neumann trace tracking of a constant reference input for 1-D boundary controlled heat-like equations with delay. IFAC-PapersOnLine, 2020, 53, 7716-7721.	0.9	0
45	Rapid stabilization of a reaction-diffusion equation with distributed disturbance. , 2020, , .		4
46	Robustness of Constant-Delay Predictor Feedback with Respect to Distinct Uncertain Time-Varying Input Delays. IFAC-PapersOnLine, 2020, 53, 7677-7682.	0.9	5
47	Inertial Velocity Estimation for Indoor Navigation Through Magnetic Gradient-based EKF and LSTM Learning Model. , 2020, , .		5
48	A Nonsmooth Hybrid Invariance Principle Applied to Robust Event-Triggered Design. IEEE Transactions on Automatic Control, 2019, 64, 2061-2068.	5.7	29
49	Feedback Stabilization of a 1-D Linear Reaction-Diffusion Equation With Delay Boundary Control. IEEE Transactions on Automatic Control, 2019, 64, 1415-1425.	5.7	72
50	Stability Analysis of a $\mathbb{R}^2$ Linear Hyperbolic System With a Sampled-Data Controller via Backstepping Method and Looped-Functionals. IEEE Transactions on Automatic Control, 2019, 64, 1718-1725.	5.7	30
51	Control Law Realification for the Feedback Stabilization of a Class of Diagonal Infinite-Dimensional Systems With Delay Boundary Control. , 2019, 3, 930-935.		9
52	An LMI condition for the robustness of constant-delay linear predictor feedback with respect to uncertain time-varying input delays. Automatica, 2019, 109, 108551.	5.0	35
53	A Glimpse on Recent Educational Activities in the Nonlinear Control Field. IFAC-PapersOnLine, 2019, 52, 196-199.	0.9	0
54	Robustness to In-Domain Viscous Damping of a Collocated Boundary Adaptive Feedback Law for an Antidamped Boundary Wave PDE. IEEE Transactions on Automatic Control, 2019, 64, 3284-3299.	5.7	21

#	ARTICLE	IF	CITATIONS
55	Stability analysis of systems with nested saturation and backlash in the loop via nonstandard anti-windup compensation. , 2019, , .		0
56	Stability analysis of a 1D wave equation with a nonmonotone distributed damping. IFAC-PapersOnLine, 2019, 52, 36-41.	0.9	0
57	Design of saturated controls for an unstable parabolic PDE. IFAC-PapersOnLine, 2019, 52, 310-315.	0.9	1
58	Improving Inertial Velocity Estimation Through Magnetic Field Gradient-based Extended Kalman Filter. , 2019, , .		5
59	PI boundary control of linear hyperbolic balance laws with stabilization of ARZ traffic flow models. Systems and Control Letters, 2019, 123, 85-91.	2.3	43
60	Distributed Control of Coupled Inhomogeneous Diffusion in Tokamak Plasmas. IEEE Transactions on Control Systems Technology, 2019, 27, 443-450.	5.2	8
61	Singular Perturbation Approach for Linear Coupled ODE-PDE Systems. Advances in Delays and Dynamics, 2019, , 3-17.	0.4	1
62	Enlarging the basin of attraction by a uniting output feedback controller. Automatica, 2018, 90, 73-80.	5.0	0
63	Experimental validation of a Lyapunov-based controller for the plasma safety factor and plasma pressure in the TCV tokamak. Nuclear Fusion, 2018, 58, 056011.	3.5	20
64	New formulation of predictors for finite-dimensional linear control systems with input delay. Systems and Control Letters, 2018, 113, 9-16.	2.3	23
65	Boundary feedback control of linear hyperbolic systems: Application to the Saint-Venantâ€™Exner equations. Automatica, 2018, 89, 44-51.	5.0	21
66	Event-Based Boundary Control of a Linear $\mathbb{R}^2$ Hyperbolic System via Backstepping Approach. IEEE Transactions on Automatic Control, 2018, 63, 2686-2693.	5.7	51
67	Well-Posedness and Output Regulation for Implicit Time-Varying Evolution Variational Inequalities. SIAM Journal on Control and Optimization, 2018, 56, 751-781.	2.1	24
68	Local Exponential Stabilization of Semi-Linear Hyperbolic Systems by Means of a Boundary Feedback Control. , 2018, 2, 55-60.		9
69	Boundary Control Design for Linear Conservation Laws in the Presence of Energy-Bounded Measurement Noise. , 2018, , .		5
70	Input shaping for infinite dimensional systems with application on oil well drilling. , 2018, , .		1
71	High-Gain Observer Design for a Class of Hyperbolic Systems of Balance Laws. , 2018, , .		9
72	Analysis and Synthesis of Reset Control Systems. Foundations and Trends in Systems and Control, 2018, 6, 117-338.	7.5	19

#	ARTICLE	IF	CITATIONS
73	Stability results for infinite-dimensional linear control systems subject to saturations. , 2018, , .		6
74	Nonstandard use of anti-windup loop for systems with input backlash. IFAC Journal of Systems and Control, 2018, 6, 33-42.	1.7	5
75	Regional stability and stabilization of a class of linear hyperbolic systems with nonlinear quadratic dynamic boundary conditions. European Journal of Control, 2018, 43, 46-56.	2.6	3
76	Goal-oriented error estimation for parameter-dependent nonlinear problems. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 705-728.	1.9	1
77	Backstepping Control of a Wave PDE With Unstable Source Terms and Dynamic Boundary. , 2018, 2, 459-464.		15
78	Necessary and Sufficient Conditions on the Exponential Stability of Positive Hyperbolic Systems. IEEE Transactions on Automatic Control, 2017, 62, 3610-3617.	5.7	38
79	Global Stabilization of a Korteweg-De Vries Equation With Saturating Distributed Control. SIAM Journal on Control and Optimization, 2017, 55, 1452-1480.	2.1	37
80	Stability Analysis of Output Feedback Control Systems With a Memory-Based Event-Triggering Mechanism. IEEE Transactions on Automatic Control, 2017, 62, 6625-6632.	5.7	27
81	Asymptotic Stabilization of Some Finite and Infinite Dimensional Systems by Means of Dynamic Event-Triggered Output Feedbacks. Lecture Notes in Control and Information Sciences, 2017, , 201-230.	1.0	3
82	Cone-bounded feedback laws for m-dissipative operators on Hilbert spaces. Mathematics of Control, Signals, and Systems, 2017, 29, 1.	2.3	24
83	Stochastic stability of Markov jump hyperbolic systems with application to traffic flow control. Automatica, 2017, 86, 29-37.	5.0	53
84	Fluid-flow modeling and stability analysis of communication networks. IFAC-PapersOnLine, 2017, 50, 4534-4539.	0.9	11
85	Effect of time scales on stability of coupled systems involving the wave equation. , 2017, , .		5
86	Dynamic boundary control synthesis of coupled PDE-ODEs for communication networks under fluid flow modeling. , 2017, , .		1
87	Backstepping observer based-control for an anti-damped boundary wave PDE in presence of in-domain viscous damping. , 2016, , .		12
88	Robustness of an adaptive output feedback for an anti-damped boundary wave PDE in presence of in-domain viscous damping. , 2016, , .		6
89	Output memory-based event-triggered control. , 2016, , .		4
90	Global stabilization of a Korteweg-de Vries equation with a distributed control saturated in L2-norm. IFAC-PapersOnLine, 2016, 49, 122-127.	0.9	1

#	ARTICLE	IF	CITATIONS
91	Event-based stabilization of linear systems of conservation laws using a dynamic triggering condition. IFAC-PapersOnLine, 2016, 49, 362-367.	0.9	12
92	Global sensitivity analysis for the boundary control of an open channel. Mathematics of Control, Signals, and Systems, 2016, 28, 1.	2.3	3
93	LMI-Based Reset $H_{\infty}$ Design for Linear Continuous-Time Plants. IEEE Transactions on Automatic Control, 2016, 61, 4157-4163.	5.7	15
94	Event-based control of linear hyperbolic systems of conservation laws. Automatica, 2016, 70, 275-287.	5.0	84
95	Semi-global stabilization by an output feedback law from a hybrid state controller. Automatica, 2016, 74, 90-98.	5.0	5
96	LQ-based event-triggered controller co-design for saturated linear systems. Automatica, 2016, 74, 47-54.	5.0	68
97	A hybrid scheme for reducing peaking in high-gain observers for a class of nonlinear systems. Automatica, 2016, 72, 138-146.	5.0	22
98	Observer-based feedback stabilization of linear systems with event-triggered sampling and dynamic quantization. Systems and Control Letters, 2016, 94, 46-56.	2.3	77
99	Singular Perturbation Approximation of Linear Hyperbolic Systems of Balance Laws. IEEE Transactions on Automatic Control, 2016, 61, 3031-3037.	5.7	7
100	Wave Equation With Cone-Bounded Control Laws. IEEE Transactions on Automatic Control, 2016, 61, 3452-3463.	5.7	50
101	Singular perturbation approximation by means of a $H_{\infty}$ Lyapunov function for linear hyperbolic systems. Systems and Control Letters, 2016, 88, 24-31.	2.3	10
102	Observer Design for Unilaterally Constrained Lagrangian Systems: A Passivity-Based Approach. IEEE Transactions on Automatic Control, 2016, 61, 2386-2401.	5.7	20
103	An optimisation approach for stability analysis and controller synthesis of linear hyperbolic systems. ESAIM - Control, Optimisation and Calculus of Variations, 2016, 22, 1236-1263.	1.3	11
104	Event-based controller synthesis by bounding methods. European Journal of Control, 2015, 26, 12-21.	2.6	10
105	Stability analysis of a singularly perturbed coupled ODE-PDE system. , 2015, , .		7
106	Stabilization of a linear Korteweg-de Vries equation with a saturated internal control. , 2015, , .		15
107	Event-based stabilizing controller using a state observer. , 2015, , .		3
108	A region-dependent gain condition for asymptotic stability. Automatica, 2015, 52, 309-316.	5.0	4

#	ARTICLE	IF	CITATIONS
109	Switching Rules for Stabilization of Linear Systems of Conservation Laws. SIAM Journal on Control and Optimization, 2015, 53, 1599-1624.	2.1	18
110	Tikhonov theorem for linear hyperbolic systems. Automatica, 2015, 57, 1-10.	5.0	27
111	Stability notions for a class of nonlinear systems with measure controls. Mathematics of Control, Signals, and Systems, 2015, 27, 245-275.	2.3	12
112	Fresh Air Fraction Control in Engines Using Dynamic Boundary Stabilization of LPV Hyperbolic Systems. IEEE Transactions on Control Systems Technology, 2015, 23, 963-974.	5.2	15
113	Well-posedness and stability of a 1D wave equation with saturating distributed input. , 2014, , .		7
114	Global sensitivity analysis for the boundary control of an open channel. , 2014, , .		2
115	Boundary control synthesis for hyperbolic systems: A singular perturbation approach. , 2014, , .		6
116	Stability and Observer Design for Lur'e Systems with Multivalued, Nonmonotone, Time-Varying Nonlinearities and State Jumps. SIAM Journal on Control and Optimization, 2014, 52, 3639-3672.	2.1	41
117	Relaxed Persistent Flow/Jump Conditions for Uniform Global Asymptotic Stability. IEEE Transactions on Automatic Control, 2014, 59, 2766-2771.	5.7	17
118	Stability Analysis and Stabilization of Systems With Input Backlash. IEEE Transactions on Automatic Control, 2014, 59, 488-494.	5.7	38
119	Using a high-gain observer for a hybrid output feedback: Finite-time and asymptotic cases for SISO affine systems. , 2014, , .		1
120	Stability of Switched Linear Hyperbolic Systems by Lyapunov Techniques. IEEE Transactions on Automatic Control, 2014, 59, 2196-2202.	5.7	39
121	Lyapunov-based hybrid loops for stability and performance of continuous-time control systems. Automatica, 2013, 49, 577-584.	5.0	49
122	Boundary observers for linear and quasi-linear hyperbolic systems with application to flow control. Automatica, 2013, 49, 3180-3188.	5.0	85
123	Stabilization of linear impulsive systems through a nearly-periodic reset. Nonlinear Analysis: Hybrid Systems, 2013, 7, 4-15.	3.5	67
124	Using Luenberger observers and dwell-time logic for feedback hybrid loops in continuous-time control systems. International Journal of Robust and Nonlinear Control, 2013, 23, 1065-1086.	3.7	25
125	Event-triggered algorithms for continuous-time systems based on reachability analysis. , 2013, , .		6
126	Hybrid high-gain observers without peaking for planar nonlinear systems. , 2012, , .		12



#	ARTICLE	IF	CITATIONS
127	ISS-Lyapunov functions for time-varying hyperbolic systems of balance laws. Mathematics of Control, Signals, and Systems, 2012, 24, 111-134.	2.3	117
128	Event-triggered sampling algorithms based on a Lyapunov function. , 2011, , .		34
129	Strict Lyapunov functions for semilinear parabolic partial differential equations. Mathematical Control and Related Fields, 2011, 1, 231-250.	1.1	91
130	Guaranteed stability for nonlinear systems by means of a hybrid loop. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 72-77.	0.4	13
131	Stability analysis for linear systems with input backlash through sufficient LMI conditions. Automatica, 2010, 46, 1911-1915.	5.0	35
132	Uniting Two Control Lyapunov Functions for Affine Systems. IEEE Transactions on Automatic Control, 2010, 55, 1923-1927.	5.7	37
133	Robust boundary control of systems of conservation laws. Mathematics of Control, Signals, and Systems, 2008, 20, 173-197.	2.3	99
134	Approximate controllability of a reaction-diffusion system. Systems and Control Letters, 2008, 57, 1048-1057.	2.3	6
135	Boundary Control of Open Channels With Numerical and Experimental Validations. IEEE Transactions on Control Systems Technology, 2008, 16, 1252-1264.	5.2	85
136	Stability analysis for reset systems with input saturation. , 2007, , .		19
137	Hybrid Feedback Control and Robust Stabilization of Nonlinear Systems. IEEE Transactions on Automatic Control, 2007, 52, 2103-2117.	5.7	65
138	Quasi-Optimal Robust Stabilization of Control Systems. SIAM Journal on Control and Optimization, 2006, 45, 1875-1897.	2.1	19
139	Control of a clamped-free beam by a piezoelectric actuator. ESAIM - Control, Optimisation and Calculus of Variations, 2006, 12, 545-563.	1.3	15
140	Stabilization of a 1-D tank containing a fluid modeled by the shallow water equations. Systems and Control Letters, 2004, 52, 167-178.	2.3	35
141	Uniting Local and Global Controllers with Robustness to Vanishing Noise. Mathematics of Control, Signals, and Systems, 2001, 14, 143-172.	2.3	82