

# Sabine Mondie

## List of Publications by Year in descending order

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132  
papers

2,647  
citations

279798

23  
h-index

206112

48  
g-index

133  
all docs

133  
docs citations

133  
times ranked

903  
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite spectrum assignment of unstable time-delay systems with a safe implementation. IEEE Transactions on Automatic Control, 2003, 48, 2207-2212.	5.7	325
2	Global asymptotic stabilization for chains of integrators with a delay in the input. IEEE Transactions on Automatic Control, 2003, 48, 57-63.	5.7	226
3	Global Asymptotic Stabilization of Feedforward Systems With Delay in the Input. IEEE Transactions on Automatic Control, 2004, 49, 844-850.	5.7	226
4	Exponential estimates for retarded time-delay systems: an LMI approach. IEEE Transactions on Automatic Control, 2005, 50, 268-273.	5.7	164
5	Design of Proportional-Integral-Retarded (PIR) Controllers for Second-Order LTI Systems. IEEE Transactions on Automatic Control, 2016, 61, 1688-1693.	5.7	115
6	Global stabilization of oscillators with bounded delayed input. Systems and Control Letters, 2004, 53, 415-422.	2.3	86
7	Tuning of Proportional Retarded Controllers: Theory and Experiments. IEEE Transactions on Control Systems Technology, 2013, 21, 983-990.	5.2	72
8	Exponential estimates for neutral time-delay systems: an LMI approach. IEEE Transactions on Automatic Control, 2005, 50, 666-670.	5.7	70
9	Stick-slip Oscillations in Oilwell Drillstrings: Distributed Parameter and Neutral Type Retarded Model Approaches. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 284-289.	0.4	61
10	Necessary stability conditions for linear delay systems. Automatica, 2014, 50, 3204-3208.	5.0	60
11	A control oriented guided tour in oilwell drilling vibration modeling. Annual Reviews in Control, 2016, 42, 100-113.	7.9	56
12	Necessary and sufficient stability conditions for linear systems with pointwise and distributed delays. Automatica, 2017, 80, 218-224.	5.0	54
13	Velocity control of servo systems using an integral retarded algorithm. ISA Transactions, 2015, 58, 357-366.	5.7	45
14	An Analytical Approach to Tuning of Delay-Based Controllers for LTI-SISO Systems. SIAM Journal on Control and Optimization, 2017, 55, 397-412.	2.1	45
15	Assigning the Kronecker invariants of a matrix pencil by row or column completions. Linear Algebra and Its Applications, 1998, 278, 327-336.	0.9	38
16	Critical frequencies and parameters for linear delay systems: A Lyapunov matrix approach. Systems and Control Letters, 2013, 62, 781-790.	2.3	37
17	Bounds on the response of a drilling pipe model. IMA Journal of Mathematical Control and Information, 2010, 27, 513-526.	1.7	33
18	Exponential Stability of Integral Delay Systems With a Class of Analytic Kernels. IEEE Transactions on Automatic Control, 2012, 57, 484-489.	5.7	32

#	ARTICLE	IF	CITATIONS
19	The control of drilling vibrations: A coupled PDE-ODE modeling approach. International Journal of Applied Mathematics and Computer Science, 2016, 26, 335-349.	1.5	32
20	Linear quadratic suboptimal control for time delays systems. International Journal of Control, 2009, 82, 147-154.	1.9	29
21	Proportional-delayed controllers design for LTI-systems: a geometric approach. International Journal of Control, 2018, 91, 907-925.	1.9	28
22	Instability conditions for linear time delay systems: a Lyapunov matrix function approach. International Journal of Control, 2011, 84, 1601-1611.	1.9	27
23	Assessing the exact stability region of the single-delay scalar equation via its Lyapunov function. IMA Journal of Mathematical Control and Information, 2012, 29, 459-470.	1.7	25
24	Predictor-based Position Control of a Quad-rotor with Delays in GPS and Vision Measurements. Journal of Intelligent and Robotic Systems: Theory and Applications, 2013, 70, 13-26.	3.4	23
25	Drilling vibration reduction via attractive ellipsoid method. Journal of the Franklin Institute, 2013, 350, 485-502.	3.4	22
26	The delay Lyapunov matrix in robust stability analysis of time-delay systems. IFAC-PapersOnLine, 2015, 48, 245-250.	0.9	22
27	Necessary Stability Conditions for Neutral Type Systems With a Single Delay. IEEE Transactions on Automatic Control, 2017, 62, 4691-4697.	5.7	22
28	Lyapunov matrix based necessary and sufficient stability condition by finite number of mathematical operations for retarded type systems. Automatica, 2019, 108, 108475.	5.0	22
29	Exponential estimates for neutral time delay systems with multiple delays. International Journal of Robust and Nonlinear Control, 2006, 16, 71-84.	3.7	21
30	Exponential stability analysis of the drilling system described by a switched neutral type delay equation with nonlinear perturbations. , 2011, , .		21
31	Stability of linear continuous-time difference equations with distributed delay: Constructive exponential estimates. International Journal of Robust and Nonlinear Control, 2015, 25, 3195-3209.	3.7	21
32	Necessary exponential stability conditions for linear periodic time-delay systems. International Journal of Robust and Nonlinear Control, 2016, 26, 3996-4007.	3.7	20
33	Necessary Stability Conditions for Linear Difference Equations in Continuous Time. IEEE Transactions on Automatic Control, 2018, 63, 4405-4412.	5.7	20
34	Necessary conditions for the exponential stability of time-delay systems via the Lyapunov delay matrix. International Journal of Robust and Nonlinear Control, 2014, 24, 1760-1771.	3.7	19
35	Necessary Stability Conditions for Delay Systems With Multiple Pointwise and Distributed Delays. IEEE Transactions on Automatic Control, 2016, 61, 1987-1994.	5.7	19
36	A constructive approach for an optimal control applied to a class of nonlinear time delay systems. Journal of Process Control, 2016, 40, 35-49.	3.3	17

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37	The Effect of Approximating Distributed Delay Control Laws on Stability. Lecture Notes in Computational Science and Engineering, 2004, , 207-222.	0.3	17
38	Global Asymptotic Stabilization of a PVTOL Aircraft Model with Delay in the Input. , 2007, , 343-356.		16
39	Proportional Integral Retarded control of second order linear systems. , 2013, , .		16
40	Exponential Stability With Decay Rate Estimation for Linear Difference Equations. IEEE Transactions on Automatic Control, 2016, 61, 252-257.	5.7	16
41	Robust stability of dynamic predictor based control laws for input and state delay systems. Systems and Control Letters, 2016, 96, 95-102.	2.3	15
42	Necessary stability conditions for neutral-type systems with multiple commensurate delays. International Journal of Control, 2019, 92, 1155-1166.	1.9	15
43	Robust stability of quasi-polynomials and the finite inclusions theorem. IEEE Transactions on Automatic Control, 2005, 50, 1826-1831.	5.7	14
44	Design of delay-based output-feedback controllers optimizing a quadratic cost function via the delay Lyapunov matrix. Automatica, 2019, 107, 146-153.	5.0	14
45	Dynamic predictor for systems with state and input delay: A time-domain robust stability analysis. International Journal of Robust and Nonlinear Control, 2020, 30, 2204-2218.	3.7	14
46	Practical Stability of Time-Delay Systems: LMI's Approach. European Journal of Control, 2011, 17, 127-138.	2.6	13
47	Necessary and Sufficient Stability Condition by Finite Number of Mathematical Operations for Time-delay Systems of Neutral Type. IEEE Transactions on Automatic Control, 2021, 66, 2802-2808.	5.7	13
48	Design of Maximum Decay Rate for SISO Systems with Delayed Output Feedback Using Elimination Theory—This work has been supported by CONACYT grant 180725 and PNPC, and developed in part during A. Ramírez's visit to R. Sipahi at Northeastern University.. IFAC-PapersOnLine, 2015, 48, 221-226.	0.9	11
49	Algebraic dominant pole placement methodology for unmanned aircraft systems with time delay. IEEE Transactions on Aerospace and Electronic Systems, 2016, 52, 1108-1119.	4.7	11
50	Computation of the Lyapunov matrix for periodic time-delay systems and its application to robust stability analysis. Systems and Control Letters, 2019, 132, 104501.	2.3	11
51	Fast consensus in a large-scale multi-agent system with directed graphs using time-delayed measurements. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180130.	3.4	11
52	Lyapunov Matrices for Neutral Type Time Delay Systems. Lecture Notes in Control and Information Sciences, 2009, , 61-71.	1.0	11
53	Guaranteed cost control of linear systems with distributed delays: A complete type functionals approach. International Journal of Control, Automation and Systems, 2010, 8, 497-505.	2.7	10
54	Practical stability and stabilization of a class of nonlinear neutral type time delay systems with multiple delays: BMI approaches. International Journal of Control, Automation and Systems, 2013, 11, 859-867.	2.7	10

#	ARTICLE	IF	CITATIONS
55	Critical parameters of integral delay systems. International Journal of Robust and Nonlinear Control, 2015, 25, 1094-1105.	3.7	10
56	Necessary Stability Conditions for Integral Delay Systems. IEEE Transactions on Automatic Control, 2020, 65, 4377-4384.	5.7	10
57	Reducing stick-slip oscillations in oilwell drillstrings. , 2009, , .		9
58	Stability Analysis of a Vision-Based UAV Controller. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 74, 69-84.	3.4	9
59	Some necessary conditions for the exponential stability of one delay systems. , 2011, , .		8
60	Dynamic predictor-based adaptive cruise control. Journal of the Franklin Institute, 2022, 359, 6123-6141.	3.4	8
61	Passivity-based PI control of first-order systems with I/O communication delays: a frequency domain analysis. International Journal of Control, 2018, 91, 2549-2562.	1.9	7
62	Stability conditions for time delay systems in terms of the Lyapunov matrix. IFAC-PapersOnLine, 2018, 51, 136-141.	0.9	7
63	Frequency Stability Analysis of Linear Systems with General Distributed Delays. Lecture Notes in Control and Information Sciences, 2009, , 25-36.	1.0	6
64	Stability analysis and estimate of the region of attraction of a human respiratory model. IMA Journal of Mathematical Control and Information, 2010, 27, 309-327.	1.7	6
65	Guaranteed cost control using Lyapunov redesign for uncertain linear time delay systems—Partially supported by Conacyt Projects 239371 and 180725. IFAC-PapersOnLine, 2015, 48, 392-397.	0.9	6
66	Scanning the space of parameters for stability regions of neutral type delay systems: A Lyapunov matrix approach. , 2016, , .		6
67	Cascade proportional integral retarded control of servodrives. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2018, 232, 662-671.	1.0	6
68	Robust stability analysis for linear systems with distributed delays: A time domain approach. International Journal of Robust and Nonlinear Control, 2020, 30, 8299-8312.	3.7	6
69	Observer-based predictor for a susceptible-infectious-recovered model with delays: An optimal control case study. International Journal of Robust and Nonlinear Control, 2021, 31, 5118-5133.	3.7	6
70	Necessary and sufficient stability conditions for integral delay systems. International Journal of Robust and Nonlinear Control, 2022, 32, 3152-3174.	3.7	6
71	State feedback in linear control theory. Linear Algebra and Its Applications, 2000, 317, 177-192.	0.9	5
72	On the optimal control of time delay systems: a complete type functionals approach. , 2007, , .		5

#	ARTICLE	IF	CITATIONS
73	Computation of Imaginary Axis Eigenvalues and Critical Parameters for Neutral Time Delay Systems. Lecture Notes in Control and Information Sciences, 2012, , 61-72.	1.0	5
74	Necessary conditions for the exponential stability of a class of distributed delay-systems. , 2014, , .		5
75	Distributed delay systems with truncated Gamma distribution: instability regions—Supported by CONACYT Project 180725.. IFAC-PapersOnLine, 2015, 48, 239-244.	0.9	5
76	Lyapunov Matrices for the Stability Analysis of a Multiple Distributed Time-Delay System with Piecewise-Function Kernel. , 2018, , .		5
77	Construction of Delay Lyapunov Matrix for Integral Delay Systems. , 2018, , .		5
78	A new stability criterion for neutral-type systems with one delay. IFAC-PapersOnLine, 2018, 51, 177-182.	0.9	5
79	Dynamic Predictor-based Extended Cooperative Adaptive Cruise Control. IFAC-PapersOnLine, 2019, 52, 7-12.	0.9	5
80	Robust stabilization of nonlinear time delay systems: A complete type functionals approach. Journal of the Franklin Institute, 2014, 351, 207-224.	3.4	4
81	Obtention of the functional of complete type for neutral type delay systems via a new Cauchy formula**Project CONACYT 180725. IFAC-PapersOnLine, 2016, 49, 118-123.	0.9	4
82	On the Lyapunov Matrix of Linear Delay Difference Equations in Continuous Time * **Project CONACYT 180725. IFAC-PapersOnLine, 2017, 50, 6507-6512.	0.9	4
83	Position control of servodrives using a cascade proportional integral retarded controller. , 2017, , .		4
84	Connected cruise control of a car platoon: A time-domain stability analysis. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2018, 232, 672-682.	1.0	4
85	A tuning procedure for the Cascade Proportional Integral Retarded Controller. IFAC-PapersOnLine, 2018, 51, 61-65.	0.9	4
86	Assisted Cooperative Adaptive Cruise Control with human memory effects. , 2019, , .		4
87	On the Lyapunov Matrix for Integral Delay Systems with a Class of General Kernel. IFAC-PapersOnLine, 2019, 52, 91-96.	0.9	4
88	Necessary stability conditions for linear systems with incommensurate delays. Automatica, 2021, 129, 109628.	5.0	4
89	On the complete controllability indexes assignment problem. IEEE Transactions on Automatic Control, 2001, 46, 348-352.	5.7	3
90	Saturations-based nonlinear controllers with integral term: validation in real-time. International Journal of Control, 2016, 89, 879-891.	1.9	3

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91	Computation of the region of attraction for a class of nonlinear neutral type delay systems * *Project CONACYT 180725.. IFAC-PapersOnLine, 2017, 50, 11990-11995.	0.9	3
92	Optimization of the H2 Norm for Time-Delay Systems, with Application to Control Design and Model Approximation. IEEE Transactions on Automatic Control, 2018, , 1-1.	5.7	3
93	Estimates for weighted homogeneous delay systems: A Lyapunov-Krasovskii-Razumikhin approach. , 2021, , .		3
94	Estimates for solutions of homogeneous time-delay systems: comparison of Lyapunovâ€“Krasovskii and Lyapunovâ€“Razumikhin techniques. International Journal of Control, 2022, 95, 3002-3011.	1.9	3
95	A New Control Scheme for Time-Delay Compensation for Structural Vibration. IFAC-PapersOnLine, 2020, 53, 4804-4809.	0.9	3
96	Matrix convex directions for time delay systems. International Journal of Robust and Nonlinear Control, 2003, 13, 1259-1270.	3.7	2
97	Robust stability of time delay systems and the finite inclusions theorem 1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 251-256.	0.4	2
98	Stability Analysis of Linear Time Delay Systems via Piecewise Linear Complete Lyapunov-Krasovskii Functionals *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 103-108.	0.4	2
99	Estimate of the region of attraction for a class of nonlinear time delay systems: a leukemia post-transplantation dynamics example. , 2007, , .		2
100	Exponential stabilization of a class of nonlinear neutral type time-delay systems, an oilwell drilling model example. , 2011, , .		2
101	Singularly perturbed control law for linear time-invariant delay SISO systems. Boletin De La Sociedad Matematica Mexicana, 2014, 20, 69-85.	0.7	2
102	Singularly perturbed implicit control law for linear time-varying delay MIMO systems. International Journal of Robust and Nonlinear Control, 2016, 26, 1395-1421.	3.7	2
103	Delays compensation for an atmospheric sliced tomatoes dehydration process via state predictors. Journal of the Franklin Institute, 2019, 356, 11473-11491.	3.4	2
104	Comments on the Bellman functional for linear timeâ€“delay systems. Optimal Control Applications and Methods, 2021, 42, 1531-1540.	2.1	2
105	Stabilisation of distributed time-delay systems: a smoothed spectral abscissa optimisation approach. International Journal of Control, 2022, 95, 2911-2923.	1.9	2
106	A Lyapunov matrix based stability criterion for a class of time-delay systems. Vestnik Sankt-Peterburgskogo Universiteta, Prikladnaya Matematika, Informatika, Protsessy Upravleniya, 2017, 13, 407-416.	0.2	2
107	The finite inclusions theorem / finite zero exclusion principle for complex quasipolynomials 1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 245-250.	0.4	1
108	Lyapunov matrix of linear systems with delays: A polynomial approximation. , 2009, , .		1

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109	Suppressing Stick-Slip Oscillations in Oilwell Drillstrings. <i>Advances in Delays and Dynamics</i> , 2014, , 189-203.	0.4	1
110	Difference equations in continuous time with distributed delay: Exponential estimates. , 2014, , .		1
111	Inverse optimality for a class of nonlinear time delay systems: A constructive approach. , 2014, , .		1
112	Quad-rotor orientation control by predictor based sliding mode control. , 2015, , .		1
113	Lyapunov matrices for the stability analysis of a system with state and input delays and dynamic predictor control. , 2018, , .		1
114	Estimate of the Exponential Decay of Linear Delay Systems Via the Lyapunov Matrix. <i>Advances in Delays and Dynamics</i> , 2016, , 89-105.	0.4	1
115	Scanning the Space of Parameters for Stability Regions of a Class of Time-Delay Systems; A Lyapunov Matrix Approach. <i>Advances in Delays and Dynamics</i> , 2019, , 153-167.	0.4	1
116	Lyapunov-Krasovskii prescribed derivative and the Bellman functional for time-delay systems. <i>IFAC-PapersOnLine</i> , 2020, 53, 7160-7165.	0.9	1
117	Special issue on System Theory and Delay in honor of Vladimir Kharitonov. <i>International Journal of Robust and Nonlinear Control</i> , 2022, 32, 3099-3100.	3.7	1
118	On the Geometric Decomposition of a Space and its Quotient Space with Respect to a Linear Operator. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 1998, 31, 119-123.	0.4	0
119	Some Remarks on Matrix Completion Problems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2001, 34, 119-124.	0.4	0
120	Stability analysis and estimate of the region of attraction of a human respiratory model. , 2008, , .		0
121	Stability analysis and estimate of the region of attraction of a human respiratory model: [republished article]. <i>IMA Journal of Mathematical Control and Information</i> , 2010, 27, 493-511.	1.7	0
122	Necessary exponential stability conditions for scalar periodic time-delay systems. , 2014, , .		0
123	Quad rotor-UAV stabilization by predictor based control. , 2017, , .		0
124	Stability analysis of a car platoon with communication delays and headway compensation. , 2017, , .		0
125	Implementing Time-delay Controllers on an Educational Motion Control Platform. , 2018, , .		0
126	Two delay-based nonlinear controllers and their tuning methods. , 2018, , .		0



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127	Nested Stabilization for Connected Cruise Control via the Delay Lyapunov Matrix. , 2019, , .		0
128	Dynamic predictor-based controls: a time-domain stability analysis. IEEE Latin America Transactions, 2019, 17, 1207-1213.	1.6	0
129	Backstepping for Uncertain Nonlinear Systems with a Delay in the Control. IFAC-PapersOnLine, 2021, 54, 758-763.	0.9	0
130	Necessary Stability Conditions for One Delay Systems: A Lyapunov Matrix Approach. Advances in Delays and Dynamics, 2014, , 3-16.	0.4	0
131	On the Stability of Linear Time-Delay Systems with Arbitrary Delays. Lecture Notes in Control and Information Sciences - Proceedings, 2022, , 73-80.	0.1	0
132	Lyapunovâ€™Krasovskii functionals for a class of homogeneous perturbed nonlinear time delay systems. , 2021, , .		0