

Rifat Sipahi

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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.

127
papers

2,559
citations

25
h-index

48
g-index

144
ext. papers

3,097
ext. citations

2.8
avg, IF

5.48
L-index

#	Paper	IF	Citations
127	An exact method for the stability analysis of time-delayed linear time-invariant (LTI) systems. <i>IEEE Transactions on Automatic Control</i> , 2002 , 47, 793-797	5.9	430
126	Stability and Stabilization of Systems with Time Delay. <i>IEEE Control Systems</i> , 2011 , 31, 38-65	2.9	365
125	Complete stability robustness of third-order LTI multiple time-delay systems. <i>Automatica</i> , 2005 , 41, 1413-1422	5.9	422
124	Stability Robustness Analysis of Multiple Time- Delayed Systems Using Building Block Concept. <i>IEEE Transactions on Automatic Control</i> , 2007 , 52, 799-810	5.9	107
123	Stability of Traffic Flow Behavior with Distributed Delays Modeling the Memory Effects of the Drivers. <i>SIAM Journal on Applied Mathematics</i> , 2008 , 68, 738-759	1.8	105
122	A practical method for analyzing the stability of neutral type LTI-time delayed systems. <i>Automatica</i> , 2004 , 40, 847-853	5.7	91
121	A unique methodology for the stability robustness of multiple time delay systems. <i>Systems and Control Letters</i> , 2006 , 55, 819-825	2.4	80
120	Design of Proportional-Integral-Retarded (PIR) Controllers for Second-Order LTI Systems. <i>IEEE Transactions on Automatic Control</i> , 2016 , 61, 1688-1693	5.9	67
119	Dynamics and Stability of Variable-pitch Milling. <i>JVC/Journal of Vibration and Control</i> , 2007 , 13, 1031-1043	5.9	66
118	Delay-Independent Stability Test for Systems With Multiple Time-Delays. <i>IEEE Transactions on Automatic Control</i> , 2012 , 57, 963-972	5.9	56
117	A Unique Methodology for Chatter Stability Mapping in Simultaneous Machining. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2005 , 127, 791-800	3.3	53
116	Delay Scheduling—A New Concept for Stabilization in Multiple Delay Systems. <i>JVC/Journal of Vibration and Control</i> , 2005 , 11, 1159-1172	2	50
115	The Cluster Treatment of Characteristic Roots and the Neutral Type Time-Delayed Systems. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2005 , 127, 88-97	1.6	41
114	Active Vibration Suppression With Time Delayed Feedback. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2003 , 125, 384-388	1.6	39
113	Advanced Clustering With Frequency Sweeping Methodology for the Stability Analysis of Multiple Time-Delay Systems. <i>IEEE Transactions on Automatic Control</i> , 2011 , 56, 467-472	5.9	38
112	Stability Robustness of Retarded LTI Systems with Single Delay and Exhaustive Determination of Their Imaginary Spectra. <i>SIAM Journal on Control and Optimization</i> , 2006 , 45, 1680-1696	1.9	38
111	Consensus Control Under Communication Delay in a Three-Robot System: Design and Experiments. <i>IEEE Transactions on Control Systems Technology</i> , 2016 , 24, 687-694	4.8	34

110	Degenerate Cases in Using the Direct Method. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2003 , 125, 194-201	1.6	33
109	An Analytical Approach to Tuning of Delay-Based Controllers for LTI-SISO Systems. <i>SIAM Journal on Control and Optimization</i> , 2017 , 55, 397-412	1.9	31
108	An improved procedure in detecting the stability robustness of systems with uncertain delay. <i>IEEE Transactions on Automatic Control</i> , 2006 , 51, 1164-1165	5.9	31
107	Responsible eigenvalue concept for the stability of a class of single-delay consensus dynamics with fixed topology. <i>IET Control Theory and Applications</i> , 2011 , 5, 622-629	2.5	30
106	Extraction of 3D stability switching hypersurfaces of a time delay system with multiple fixed delays. <i>Automatica</i> , 2009 , 45, 1449-1454	5.7	30
105	Delay scheduling—an unconventional use of time delay for trajectory tracking. <i>Mechatronics</i> , 2007 , 17, 199-206	3	30
104	Stability of inventory dynamics in supply chains with three delays. <i>International Journal of Production Economics</i> , 2010 , 123, 107-117	9.3	27
103	A New Perspective in the Stability Assessment of Neutral Systems with Multiple and Cross-Talking Delays. <i>SIAM Journal on Control and Optimization</i> , 2008 , 47, 327-344	1.9	27
102	Stability of car following with human memory effects and automatic headway compensation. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010 , 368, 4563-83	3	23
101	Media coverage and firearm acquisition in the aftermath of a mass shooting. <i>Nature Human Behaviour</i> , 2019 , 3, 913-921	12.8	21
100	Complete Stability Analysis of Neutral-Type First Order Two-Time-Delay Systems with Cross-Talking Delays. <i>SIAM Journal on Control and Optimization</i> , 2006 , 45, 957-971	1.9	20
99	On Stability Problems of Supply Networks Constrained With Transport Delay. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2009 , 131,	1.6	19
98	Multiple Intentional Delays Can Facilitate Fast Consensus and Noise Reduction in a Multiagent System. <i>IEEE Transactions on Cybernetics</i> , 2019 , 49, 1224-1235	10.2	17
97	Controller design for delay-independent stability of linear time-invariant vibration systems with multiple delays. <i>Journal of Sound and Vibration</i> , 2013 , 332, 3589-3604	3.9	16
96	Delay-dependent coupling for a multi-agent LTI consensus system with inter-agent delays. <i>Physica D: Nonlinear Phenomena</i> , 2014 , 267, 112-122	3.3	15
95	A Linear Time-Invariant Consensus Dynamics with Homogeneous Delays: Analytical Study and Synthesis of Rightmost Eigenvalues. <i>SIAM Journal on Control and Optimization</i> , 2013 , 51, 3971-3992	1.9	14
94	Rules and limitations of building delay-tolerant topologies for coupled systems. <i>Physical Review E</i> , 2012 , 85, 016104	2.4	13
93	Delay-margin design for the general class of single-delay retarded-type LTI systems. <i>International Journal of Dynamics and Control</i> , 2014 , 2, 198-209	1.7	12

92	Stochastic cellular automata model of neurosphere growth: Roles of proliferative potential, contact inhibition, cell death, and phagocytosis. <i>Journal of Theoretical Biology</i> , 2018 , 445, 151-165	2.3	11
91	Stability limit of human-in-the-loop model reference adaptive control architectures. <i>International Journal of Control</i> , 2018 , 91, 2314-2331	1.5	11
90	Input/output stability of a damped string equation coupled with ordinary differential system. <i>International Journal of Robust and Nonlinear Control</i> , 2018 , 28, 6053-6069	3.6	11
89	Toward Monitoring Parkinson's Through Analysis of Static Handwriting Samples: A Quantitative Analytical Framework. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2017 , 21, 488-495	7.2	10
88	A stability study on first-order neutral systems with three rationally independent time delays. <i>International Journal of Systems Science</i> , 2010 , 41, 1445-1455	2.3	10
87	Stability Analysis of Multiple Time Delayed Systems Using the Direct Method 2003 ,		10
86	On Stability Analysis and Parametric Design of Supply Networks Under the Presence of Transportation Delays 2006 ,		10
85	Small-signal stability analysis of delayed power system stabilizers 2014 ,		9
84	A COMPARATIVE SURVEY IN DETERMINING THE IMAGINARY CHARACTERISTIC ROOTS OF LTI TIME DELAYED SYSTEMS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2005 , 38, 390-399		9
83	Stochastic cellular automata model of tumorous neurosphere growth: Roles of developmental maturity and cell death. <i>Journal of Theoretical Biology</i> , 2019 , 467, 100-110	2.3	8
82	Stability Analysis of a Constant Time-Headway Driving Strategy with Driver Memory Effects Modeled by Distributed Delays. <i>IFAC-PapersOnLine</i> , 2015 , 48, 376-381	0.7	8
81	Advanced clustering with frequency sweeping (ACFS) methodology for the stability analysis of multiple time-delay systems 2010 ,		8
80	Chain stability in traffic flow with driver reaction delays 2008 ,		8
79	ANALYTICAL STABILITY STUDY OF A DETERMINISTIC CAR FOLLOWING MODEL UNDER MULTIPLE DELAY INTERACTIONS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 187-192		8
78	A consensus dynamics with delay-induced instability can self-regulate for stability via agent regrouping. <i>Chaos</i> , 2016 , 26, 116313	3.3	8
77	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 PNPIC, and developed in part during A. Ramírez's visit to R. Sipahi at Northeastern University.. <i>IFAC-PapersOnLine</i> , 2015 , 48, 221-226	0.7	7
76	Single-Delay and Multiple-Delay Proportional-Retarded (PR) Protocols for Fast Consensus in a Large-Scale Network. <i>IEEE Transactions on Automatic Control</i> , 2019 , 64, 2142-2149	5.9	7
75	Graph Laplacian Design for Fast Consensus of a LTI System With Heterogeneous Agent Couplings and Homogeneous Inter-Agent Delays 2013 ,		7

74	Generalization of cluster treatment of characteristic roots for robust stability of multiple time-delayed systems. <i>International Journal of Robust and Nonlinear Control</i> , 2008 , 18, 1430-1449	3.6	7
73	Kernel and Offspring Concepts for the Stability Robustness of Multiple Time Delayed Systems (MTDS). <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2007 , 129, 245-251	1.6	7
72	Deterministic Time-Delayed Traffic Flow Models: A Survey. <i>Understanding Complex Systems</i> , 2009 , 297-322	4	7
71	An approach to compute and design the delay margin of a large-scale matrix delay equation. <i>International Journal of Robust and Nonlinear Control</i> , 2019 , 29, 1101-1121	3.6	7
70	Growth of adult spinal cord in knifefish: Development and parametrization of a distributed model. <i>Journal of Theoretical Biology</i> , 2018 , 437, 101-114	2.3	6
69	On some features of core hypersurfaces related to stability switching of LTI systems with multiple delays. <i>IMA Journal of Mathematical Control and Information</i> , 2014 , 31, 257-272	1.1	6
68	Stability Analysis of LTI Systems With Three Independent Delays A Computationally Efficient Procedure. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2009 , 131,	1.6	6
67	The Cluster Treatment of Characteristic Roots and the Neutral Type Time-Delayed Systems 2004 , 1359		6
66	Effects of Edge Elimination on the Delay Margin of a Class of LTI Consensus Dynamics. <i>IEEE Transactions on Automatic Control</i> , 2018 , 63, 4397-4404	5.9	5
65	Stability Analysis of Three-Agent Consensus Dynamics With Fixed Topology and Three Non-Identical Delays 2008 ,		5
64	Responsible Eigenvalue Approach for Stability Analysis and Control Design of a Single-Delay Large-Scale System With Random Coupling Strengths 2010 ,		5
63	Responsible-Eigenvalue Control for Creating Autonomy in Coupled Systems With Delays 2011 ,		5
62	Can improved specialty access moderate emergency department overuse?: Effect of neurology appointment delays on ED visits. <i>Neurology: Clinical Practice</i> , 2016 , 6, 498-505	1.7	5
61	Portable Motion-Analysis Device for Upper-Limb Research, Assessment, and Rehabilitation in Non-Laboratory Settings. <i>IEEE Journal of Translational Engineering in Health and Medicine</i> , 2019 , 7, 2800314	3.14	5
60	Fast consensus in a large-scale multi-agent system with directed graphs using time-delayed measurements. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019 , 377, 20180130	3	4
59	Stability intricacies of two-delay linear systems in the presence of delay cross-talk. <i>IET Control Theory and Applications</i> , 2011 , 5, 990-998	2.5	4
58	Controller Design for Delay-Independent Stability of Multiple Time-Delay Systems via Descartes's Rule of Signs. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2010 , 43, 144-149		4
57	Effects of Short-Term Memory of Drivers on Stability Interpretations of Traffic Flow Dynamics. <i>Proceedings of the American Control Conference</i> , 2007 ,	1.2	4

56	A New Perspective for Time Delayed Control Systems With Application to Vibration Suppression 2002 , 355		4
55	Improving on transfer entropy-based network reconstruction using time-delays: Approach and validation. <i>Chaos</i> , 2020 , 30, 023125	3-3	3
54	2014 ,		3
53	Analysis of Subjects' Vulnerability in a Touch Screen Game Using Behavioral Metrics. <i>Applied Psychophysiology Biofeedback</i> , 2017 , 42, 269-282	3-4	3
52	Early-stage firms and delay-based inventory control using decision-making tableaux. <i>International Journal of Production Research</i> , 2010 , 48, 5497-5521	7-8	3
51	Asymptotic stability of constant time headway driving strategy with multiple driver reaction delays 2009 ,		3
50	The Largest Achievable Delay Margin of a Class of Coupled LTI Systems Synthesized by Graph Operations. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 179-184		3
49	Exact Upper and Lower Bounds of Crossing Frequency Set and Delay Independent Stability Test for Multiple Time Delayed Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2009 , 42, 107-111		3
48	Slow Time-Varying Delay Effects - Robust Stability Characterization of Deterministic Car Following Models 2006 ,		3
47	Inventory Dynamics Models of Supply Chains with Delays; System-Level Connection & Stability. <i>Lecture Notes in Control and Information Sciences</i> , 2009 , 349-358	0.5	3
46	A Scalable Approach to Compute Delay Margin of a Class of Neutral-Type Time Delay Systems. <i>SIAM Journal on Control and Optimization</i> , 2021 , 59, 805-824	1.9	3
45	Fast Consensus Against Noise in a Large-Scale Multi-Agent System with Distributed Proportional-Retarded (PR) Controllers 2018 ,		2
44	Combined Time-Frequency Calculation of pNN50 Metric From Noisy Heart Rate Measurements 2014 ,		2
43	Design of a Delay-based Controller for Fast Stabilization in a Network System with Input Delays via the Lambert W function 1. <i>Procedia IUTAM</i> , 2017 , 22, 83-90		2
42	Stability Analysis of a Human-in-the-Loop Telerobotics System with Two Independent Time-Delays. <i>IFAC-PapersOnLine</i> , 2017 , 50, 6519-6524	0.7	2
41	Assessment of Human Vulnerability in a Touch-Screen Game; Metrics and Analysis 2015 ,		2
40	Control Design for a Hand Tremor Suppression Pen 2015 ,		2
39	A touchscreen game to induce mental workload on human subjects 2014 ,		2

38	An algebraic approach to design observers for delay-independent stability of systems with single output delay 2011 ,		2
37	Analytical Boundaries of Controller Gains for Delay-independent Stability of LTI Systems with Single Output Delay. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 225-230		2
36	Dependence of Delay Margin on Network Topology: Single Delay Case. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2010 , 43, 93-98		2
35	Supply Network Dynamics and Delays; Performance, Synchronization, Stability. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2008 , 41, 6330-6335		2
34	Complete Stability Map of Neutral Type First Order - Two Time Delay Systems. <i>Proceedings of the American Control Conference</i> , 2007 ,	1.2	2
33	An efficient numerical approach for the stability analysis of a class of lti systems with arbitrary number of delays. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2007 , 40, 292-297		2
32	On controller design for delay-independent stability of linear time-invariant systems with multiple delays 2013 ,		2
31	Design of Imaginary Spectrum of LTI Systems with Delays to Manipulate Stability Regions. <i>Advances in Delays and Dynamics</i> , 2017 , 127-140	0.3	2
30	Predictor-Based Stabilization of Multiple Differential-wheeled Robots under Measurement Delays: Controller Gain Design for Fast Consensus 2020 ,		2
29	Cellular automata modeling suggests symmetric stem-cell division, cell death, and cell drift as key mechanisms driving adult spinal cord growth in teleost fish. <i>Journal of Theoretical Biology</i> , 2021 , 509, 110474	2.3	2
28	Towards the design of a human-machine interface via disturbance adaptive control: An analogous machine-to-machine system 2014 ,		1
27	2014 ,		1
26	A Predictor-Compensator Design to Assist Human Decision-Making Process in an Air-Traffic-Control Simulator 2013 ,		1
25	Model-free approach to controlling nonlinear systems with single output delay 2012 ,		1
24	Characterizing stability of inventories in supply chains with delays in early-stage firms 2008 ,		1
23	Supply Chain Dynamics With Decision Making and Production Delays: Stability Analysis and Optimum Controller Selection 2008 ,		1
22	Slow time-varying delay effects - robust stability characterization of deterministic car following models 2006 ,		1
21	EXACT STABILITY ANALYSIS OF NEUTRAL SYSTEMS WITH CROSS-TALKING DELAYS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 175-180		1

20	Degenerate Cases in Using the Direct Method 2003 , 2201		1
19	Experimental Evaluation of a Braille-Reading-Inspired Finger Motion Adaptive Algorithm. <i>PLoS ONE</i> , 2016 , 11, e0148356	3.7	1
18	Chatter Stability Mapping for Simultaneous Machining 2005 ,		1
17	Consensus Stability of a Large Scale Robotic Network under Input and Transmission Delays. <i>IEEE Transactions on Control of Network Systems</i> , 2021 , 1-1	4	1
16	Improvements on the Cluster Treatment of Characteristic Roots and the Case Studies. <i>Lecture Notes in Computational Science and Engineering</i> , 2004 , 61-73	0.3	1
15	Stability Analysis of a Large-scale Single-Lane Connected Vehicle Model with Multiple Sensing, Communication, and Human Reaction Delays 2020 ,		1
14	Stability of Human-in-the-Loop Multiagent Systems with Time Delays 2019 ,		1
13	Development of a combined time-frequency technique for accurate extraction of pNN50 metric from noisy heart rate measurements. <i>International Journal of Intelligent Robotics and Applications</i> , 2018 , 2, 193-208	1.7	0
12	Creating two disjoint stability intervals along the delay axis via controller design: a class of LTI SISO systems. <i>International Journal of Dynamics and Control</i> , 2017 , 5, 1156-1171	1.7	0
11	Derivative-dependent control of a fuel cell system with a safe implementation: An artificial delay approach. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , 095965182110127	1	0
10	Damping Power System Electromechanical Oscillations Using Time Delays. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2021 , 68, 2725-2735	3.9	0
9	Sub-platooning via Agent Separation for Improved Traffic Flow Metrics in a Car-Following Model. <i>Advances in Delays and Dynamics</i> , 2022 , 71-85	0.3	0
8	Stability Analysis and Control Design of a Vibration Control System with Uncertain and Tunable Delays**The presented research has been supported by the Ministry of Education of the Czech Republic under the program KONTAKT II LH12066.. <i>IFAC-PapersOnLine</i> , 2015 , 48, 123-128	0.7	
7	An actively controlled harmonic force generator. <i>Control Engineering Practice</i> , 2009 , 17, 210-220	3.9	
6	Stability in Variable-Pitch Milling Regarding Regenerative Chatter 2006 , 1037		
5	Delay margin comparison in a velocity-only versus headway-only connected vehicle model. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , 095965182110555	1	
4	Proportional-Retarded (PR) Protocol for a Large Scale Multi-agent Network with Noisy Measurements; Stability and Performance. <i>Advances in Delays and Dynamics</i> , 2019 , 249-263	0.3	
3	Dependence of Delay Margin on Network Topology: Single Delay Case. <i>Lecture Notes in Control and Information Sciences</i> , 2012 , 395-405	0.5	

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|---|---|-----|
| 2 | Graph Laplacian Design of a LTI Consensus System for the Largest Delay Margin: Case Studies. <i>Advances in Delays and Dynamics</i> , 2014 , 101-112 | 0.3 |
| 1 | Stability of a Large-Scale Connected Vehicle Network in Ring Configuration and With Multiple Delays. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2020 , 1-5 | 6.1 |