Paolo Rapisarda

List of Publications by Year
in descending order

74 papers	**1,547** citations	430754 **18** h-index	330025 **37** g-index
77 all docs	**77** docs citations	**77** times ranked	**515** citing authors

#	ARTICLE	IF	CITATIONS
1	A note on persistency of excitation. Systems and Control Letters, 2005, 54, 325-329.	1.3	466
2	Data-driven simulation and control. International Journal of Control, 2008, 81, 1946-1959.	1.2	185
3	State Maps for Linear Systems. SIAM Journal on Control and Optimization, 1997, 35, 1053-1091.	1.1	139
4	Critical analysis of partial discharge dynamics in air filled spherical voids. Journal Physics D: Applied Physics, 2018, 51, 125601.	1.3	56
5	Modeling Approaches for DC–DC Converters With Switched Capacitors. IEEE Transactions on Industrial Electronics, 2015, 62, 953-959.	5.2	49
6	Data-driven control: A behavioral approach. Systems and Control Letters, 2017, 101, 37-43.	1.3	48
7	New Algorithms for Polynomial J-Spectral Factorization. Mathematics of Control, Signals, and Systems, 1999, 12, 24-61.	1.4	41
8	Time-relevant stability of 2D systems. Automatica, 2011, 47, 2373-2382.	3.0	35
9	Identification and data-driven model reduction of state-space representations of lossless and dissipative systems from noise-free data. Automatica, 2011, 47, 1721-1728.	3.0	30
10	A two-variable approach to solve the polynomial Lyapunov equation. Systems and Control Letters, 2001, 42, 117-126.	1.3	28
11	On Lyapunov functions and data-driven dissipativity. IFAC-PapersOnLine, 2017, 50, 7783-7788.	0.5	28
12	State Maps from Integration by Parts. SIAM Journal on Control and Optimization, 2011, 49, 2415-2439.	1.1	25
13	On the linear quadratic data-driven control. , 2007, , .		24
14	The subspace Nevanlinna interpolation problem and the most powerful unfalsified model. Systems and Control Letters, 1997, 32, 291-300.	1.3	23
15	On the state of behaviors. Linear Algebra and Its Applications, 2007, 424, 570-614.	0.4	23
16	Lyapunov stability analysis of higher-order 2-D systems. Multidimensional Systems and Signal Processing, 2011, 22, 287-302.	1.7	22
17	Canonical forms for polynomial and quadratic differential operators. Systems and Control Letters, 2007, 56, 678-684.	1.3	20
18	Lyapunov stability of 2D finite-dimensional behaviours. International Journal of Control, 2011, 84, 737-745.	1.2	20

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19	Pick Matrix Conditions for Sign-Definite Solutions of the Algebraic Riccati Equation. SIAM Journal on Control and Optimization, 2001, 40, 969-991.	1.1	19
20	On the stability of switched behavioral systems. , 2011, , .		17
21	Dissipativity preserving model reduction by retention of trajectories of minimal dissipation. Mathematics of Control, Signals, and Systems, 2009, 21, 171-201.	1.4	14
22	A categorical approach to open and interconnected dynamical systems. , 2016, , .		14
23	Recursive exact Hâˇž-identification from impulse-response measurements. Systems and Control Letters, 2003, 49, 323-334.	1.3	12
24	Conserved- and zero-mean quadratic quantities in oscillatory systems. Mathematics of Control, Signals, and Systems, 2005, 17, 173-200.	1.4	12
25	A characterization of solutions of the discrete-time algebraic Riccati equation based on quadratic difference forms. Linear Algebra and Its Applications, 2006, 416, 1060-1082.	0.4	12
26	Dissipative Switched Linear Differential Systems. IEEE Transactions on Automatic Control, 2016, 61, 3813-3825.	3.6	12
27	A note on persistency of excitation. , 2004, , .		11
28	On the Takagi interpolation problem. Linear Algebra and Its Applications, 2007, 425, 453-470.	0.4	10
29	Lyapunov functions for time-relevant systems, with application to first-orthant stable systems. Automatica, 2012, 48, 1998-2006.	3.0	10
30	Identification and data-driven reduced-order modeling for linear conservative port- and self-adjoint Hamiltonian systems. , 2013, , .		10
31	Failure identification for 3D linear systems. Multidimensional Systems and Signal Processing, 2015, 26, 481-502.	1.7	10
32	Improving models of partial discharge activity using simulation. , 2017, , .		8
33	Bilinear Differential Forms and the Loewner Framework for Rational Interpolation. Lecture Notes in Control and Information Sciences, 2015, , 23-43.	0.6	8
34	Data-Driven Dissipativity Analysis: Application of the Matrix S-Lemma. IEEE Control Systems, 2022, 42, 140-149.	1.0	8
35	Canonical realizations by factorization of constant matrices. Systems and Control Letters, 2012, 61, 827-833.	1.3	6
36	Realization of Lossless Systems Via Constant Matrix Factorizations. IEEE Transactions on Automatic Control, 2013, 58, 2632-2636.	3.6	6

#	Article	IF	Citations
37	A duality perspective on Loewner rational interpolation and state-space modelling of vector-exponential trajectories. , 2015, , .		6
38	Physical models for field based partial discharge measurements. , 2015, , .		6
39	State-Space Modeling of Two-Dimensional Vector-Exponential Trajectories. SIAM Journal on Control and Optimization, 2016, 54, 2734-2753.	1.1	6
40	Failure identification for linear repetitive processes. Multidimensional Systems and Signal Processing, 2015, 26, 1037-1059.	1.7	5
41	On the switching control of the DC–DC zeta converter operating in continuous conduction mode. IET Control Theory and Applications, 2021, 15, 1185-1198.	1.2	5
42	Balanced State Representations with Polynomial Algebra. , 2003, , 345-357.		5
43	Higher-order linear lossless systems. International Journal of Control, 2008, 81, 1519-1536.	1.2	4
44	Investigating the dependence of partial discharge activity on applied field structure. , 2016, , .		4
45	Investigation of void erosion on partial discharge activity using simulation. , 2016, , .		4
46	Partial Discharges Identification and Localisation within Transformer Windings. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 2095-2103.	1.8	4
47	A two-variable approach to solve the polynomial Lyapunov equation. , 0, , .		3
48	Stabilization, Lyapunov functions, and dissipation. Systems and Control Letters, 2010, 59, 806-811.	1.3	3
49	On the Identification of Self-Adjoint Linear Time-Varying State Models. IFAC-PapersOnLine, 2018, 51, 251-256.	0.5	3
50	Balanced state representations from higher order differential equations. , 0, , .		2
51	Vector-exponential time-series modeling for polynomial J-spectral factorization. , 0, , .		2
52	A behavioral approach to passivity and bounded realness preserving balanced truncation with error bounds. , 2009, , .		2
53	A counterexample to "Generalized eigenvalue-based stability tests for 2-D linear systems: Necessary and sufficient conditions" by Fu, P., Chen, J., and S.I. Niculescu. Automatica, 2010, 46, 234-235.	3.0	2
54	Time-relevant 2D behaviors. , 2011, , .		2

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55	New frequency domain based stability tests for 2D linear systems. , 2012, , .		2
56	Algorithms for polynomial spectral factorization and bounded-real balanced state space representations. Mathematics of Control, Signals, and Systems, 2013, 25, 231-255.	1.4	2
57	A GrÃ¶bner Basis Approach to Solve a Rank Minimization Problem Arising in 2D-identification. IFAC-PapersOnLine, 2017, 50, 1834-1839.	0.5	2
58	Discrete Roesser state models from 2D frequency data. Multidimensional Systems and Signal Processing, 2019, 30, 591-610.	1.7	2
59	A behavioral view of Nevanlinna-Pick interpolation. , 0, , .		1
60	A bilinear differential forms approach to parametric structured state-space modelling. Systems and Control Letters, 2016, 92, 14-19.	1.3	1
61	Consensus for linear agents with unknown parameters. IFAC-PapersOnLine, 2017, 50, 2505-2510.	0.5	1
62	From Dirac structure to state model: identification of linear time-varying port-Hamiltonian systems. , 2019, , .		1
63	BALANCED STATE REPRESENTATIONS FROM HIGHER-ORDER MODELS. , 2005, , .		1
64	A new algorithm for polynomial J -spectral factorization. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 1744-1748.	0.4	0
65	All unmixed solutions of the algebraic Riccati equation using Pick matrices. , 0, , .		0
66	Interpolation with bilinear differential forms. , 0, , .		0
67	Balanced state-space representations: a polynomial algebraic approach. , 2009, , .		0
68	Autonomy, forward non-Zenoness and quadratic stability of bimodal higher-order piecewise linear systems. , 2014, , .		0
69	Reprint of â€œA bilinear differential forms approach to parametric structured state-space modellingâ€. Systems and Control Letters, 2016, 95, 77-82.	1.3	0
70	Discrete Roesser state models from 2D vector-geometric trajectories. , 2017, , .		0
71	Rational Orthonormal Bases, State Transformations, and Dissipativity. IEEE Transactions on Automatic Control, 2022, 67, 2019-2026.	3.6	0
72	The simulation problem for high order linear differential systems. , 2001, , .		0

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73	Pick matrix conditions for sign-definite solutions of the algebraic Riccati equation. , 2001, , .		0
74	State for Linear Time-Varying Systems, with Applications to Dissipative Systems. SIAM Journal on Control and Optimization, 2022, 60, 147-167.	1.1	0