

# Lorenzo Ntogramatzidis

## List of Publications by Year in descending order

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108  
papers

1,048  
citations

394421

19  
h-index

477307

29  
g-index

108  
all docs

108  
docs citations

108  
times ranked

486  
citing authors

#	ARTICLE	IF	CITATIONS
1	A unified method for the design of nonovershooting linear multivariable state-feedback tracking controllers. <i>Automatica</i> , 2010, 46, 312-321.	5.0	78
2	Some new results in the theory of negative imaginary systems with symmetric transfer matrix function. <i>Automatica</i> , 2013, 49, 2138-2144.	5.0	67
3	Foundations of Not Necessarily Rational Negative Imaginary Systems Theory: Relations Between Classes of Negative Imaginary and Positive Real Systems. <i>IEEE Transactions on Automatic Control</i> , 2016, 61, 3052-3057.	5.7	64
4	The generalised discrete algebraic Riccati equation in linear-quadratic optimal control. <i>Automatica</i> , 2013, 49, 471-478.	5.0	49
5	Discrete-time negative imaginary systems. <i>Automatica</i> , 2017, 79, 1-10.	5.0	45
6	A parametrization of the solutions of the finite-horizon LQ problem with general cost and boundary conditions. <i>Automatica</i> , 2005, 41, 1359-1366.	5.0	39
7	Explicit reference governor for linear systems. <i>International Journal of Control</i> , 2018, 91, 1415-1430.	1.9	37
8	The design of nonovershooting and nonundershooting multivariable state feedback tracking controllers. <i>Systems and Control Letters</i> , 2012, 61, 714-722.	2.3	34
9	The generalized continuous algebraic Riccati equation and impulse-free continuous-time LQ optimal control. <i>Automatica</i> , 2014, 50, 1176-1180.	5.0	31
10	Globally Monotonic Tracking Control of Multivariable Systems. <i>IEEE Transactions on Automatic Control</i> , 2016, 61, 2559-2564.	5.7	27
11	On the solution of the Riccati differential equation arising from the LQ optimal control problem. <i>Systems and Control Letters</i> , 2010, 59, 114-121.	2.3	25
12	A unified method for optimal arbitrary pole placement. <i>Automatica</i> , 2014, 50, 2150-2154.	5.0	25
13	Employing the algebraic Riccati equation for a parametrization of the solutions of the finite-horizon LQ problem: the discrete-time case. <i>Systems and Control Letters</i> , 2005, 54, 693-703.	2.3	24
14	Robust Eigenstructure Assignment in Geometric Control Theory. <i>SIAM Journal on Control and Optimization</i> , 2014, 52, 960-986.	2.1	22
15	Multileg Interleaved Buck Converter for EV Charging: Discrete-Time Model and Direct Control Design. <i>Energies</i> , 2020, 13, 466.	3.1	21
16	A new approach to the cheap LQ regulator exploiting the geometric properties of the Hamiltonian system. <i>Automatica</i> , 2008, 44, 2834-2839.	5.0	20
17	Detectability subspaces and observer synthesis for two-dimensional systems. <i>Multidimensional Systems and Signal Processing</i> , 2012, 23, 79-96.	2.6	20
18	Linear matrix inequalities for globally monotonic tracking control. <i>Automatica</i> , 2015, 61, 173-177.	5.0	20

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19	A geometric theory for 2-D systems including notions of stabilisability. Multidimensional Systems and Signal Processing, 2008, 19, 449-475.	2.6	19
20	The Extended Symplectic Pencil and the Finite-Horizon LQ Problem With Two-Sided Boundary Conditions. IEEE Transactions on Automatic Control, 2013, 58, 2102-2107.	5.7	19
21	A Unified Approach to the Finite-Horizon Linear Quadratic Optimal Control Problem*. European Journal of Control, 2007, 13, 473-488.	2.6	17
22	A unified approach to finite-horizon generalized LQ optimal control problems for discrete-time systems. Linear Algebra and Its Applications, 2007, 425, 242-260.	0.9	17
23	Self-Bounded Subspaces for Nonstrictly Proper Systems and Their Application to the Disturbance Decoupling With Direct Feedthrough Matrices. IEEE Transactions on Automatic Control, 2008, 53, 423-428.	5.7	17
24	Continuous-time singular linearâ€“quadratic control: Necessary and sufficient conditions for the existence of regular solutions. Systems and Control Letters, 2016, 93, 30-34.	2.3	17
25	A reduction technique for discrete generalized algebraic and difference Riccati equations. Linear and Multilinear Algebra, 2014, 62, 1460-1474.	1.0	16
26	LQ optimal control for 2D Roesser models of finite extent. Systems and Control Letters, 2009, 58, 482-490.	2.3	15
27	Achieving a nonovershooting transient response with multivariable dynamic output feedback tracking controllers. , 2009, , .		14
28	Analytical and graphical design of leadâ€“lag compensators. International Journal of Control, 2011, 84, 1830-1846.	1.9	14
29	Direct Digital Design of PIDF Controllers with Complex Zeros for DC-DC Buck Converters. Energies, 2019, 12, 36.	3.1	12
30	A parametrization of the solutions of the Hamiltonian system for stabilizable pairs. International Journal of Control, 2005, 78, 530-533.	1.9	11
31	Structural Invariants of Two-dimensional Systems. SIAM Journal on Control and Optimization, 2012, 50, 334-356.	2.1	11
32	Direct and exact methods for the synthesis of discreteâ€“time proportionalâ€“integralâ€“derivative controllers. IET Control Theory and Applications, 2013, 7, 2164-2171.	2.1	11
33	Nonovershooting and nonundershooting exact output regulation. Systems and Control Letters, 2014, 70, 30-37.	2.3	11
34	A note on finite-horizon LQ problems with indefinite cost. Automatica, 2015, 52, 290-293.	5.0	11
35	On the reduction of the continuous-time generalized algebraic Riccati equation: An effective procedure for solving the singular LQ problem with smooth solutions. Automatica, 2018, 93, 554-558.	5.0	11
36	Failure identification for 3D linear systems. Multidimensional Systems and Signal Processing, 2015, 26, 481-502.	2.6	10

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37	On the Partial Realization of Noncausal 2-D Linear Systems. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2007, 54, 1800-1808.	0.1	9
38	Tuning and performance assessment of complex fractional-order PI controllers. IFAC-PapersOnLine, 2018, 51, 757-762.	0.9	9
39	Eigenstructure assignment in linear geometric control. Automatica, 2021, 124, 109363.	5.0	9
40	The discrete-time generalized algebraic Riccati equation: Order reduction and solutions's structure. Systems and Control Letters, 2015, 75, 84-93.	2.3	7
41	A general approach to the eigenstructure assignment for reachability and stabilizability subspaces. Systems and Control Letters, 2017, 106, 58-67.	2.3	7
42	Measurable Signal Decoupling with Dynamic Feedforward Compensation and Unknown-Input Observation for Systems with Direct Feedthrough*. European Journal of Control, 2007, 13, 489-500.	2.6	6
43	Repeated eigenstructure assignment for controlled invariant subspaces. European Journal of Control, 2015, 26, 1-11.	2.6	6
44	Nonovershooting state feedback and dynamic output feedback tracking controllers for descriptor systems. International Journal of Control, 2018, 91, 1785-1800.	1.9	6
45	A unified approach to the finite-horizon LQ regulator - Part I: the continuous time. , 2006, , .		5
46	On Kalman filtering for 2-D Fornasini-Marchesini models. , 2009, , .		5
47	Comments on "Structural Invariant Subspaces of Singular Hamiltonian Systems and Nonrecursive Solutions of Finite-Horizon Optimal Control Problems. IEEE Transactions on Automatic Control, 2012, 57, 270-272.	5.7	5
48	Arbitrary pole placement by state feedback with minimum gain. , 2013, , .		5
49	Structural invariants of implicit two-dimensional systems. , 2011, , .		4
50	The role of the generalised continuous algebraic Riccati equation in impulse-free continuous-time singular LQ optimal control. , 2013, , .		4
51	Robust repeated pole placement. , 2013, , .		4
52	On the definition of negative imaginary system for not necessarily rational symmetric transfer functions. , 2013, , .		4
53	On the computation of the fundamental subspaces for descriptor systems. International Journal of Control, 2016, 89, 1481-1494.	1.9	4
54	A Structural Approach to State-to-Output Decoupling. SIAM Journal on Control and Optimization, 2018, 56, 3816-3847.	2.1	4

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55	On the well-posedness in the solution of the disturbance decoupling by dynamic output feedback with self bounded and self hidden subspaces. <i>Automatica</i> , 2019, 106, 315-326.	5.0	4
56	On the design of non-overshooting linear tracking controllers for right-invertible systems. , 2009, , .		3
57	Lead-Lag compensators: Analytical and graphical design on the Nyquist plane. , 2011, , .		3
58	Solvability conditions for the positive real lemma equations in the discrete time. <i>IET Control Theory and Applications</i> , 2017, 11, 2916-2920.	2.1	3
59	The geometry of the generalized algebraic Riccati equation and of the singular Hamiltonian system. <i>Linear and Multilinear Algebra</i> , 2019, 67, 158-174.	1.0	3
60	Minimizing control volatility for nonlinear systems with smooth piecewise-quadratic input signals. <i>Systems and Control Letters</i> , 2020, 145, 104797.	2.3	3
61	Conditioned invariance and unknown-input observation for two-dimensional Fornasini-Marchesini models. , 2007, , .		3
62	On the Realization of 2-D Linear Systems With Recursively Computable Latent Variable Models. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2009, 56, 644-652.	5.4	2
63	Geometric techniques for implicit two-dimensional systems. <i>Multidimensional Systems and Signal Processing</i> , 2013, 24, 601-620.	2.6	2
64	A Novel Instructional Approach to the Design of Standard Controllers: Using Inversion Formulae. <i>IEEE Transactions on Education</i> , 2014, 57, 54-60.	2.4	2
65	New inversion formulae for PIDF controllers with complex zeros for DC-DC buck converter. , 2016, , .		2
66	A unified approach to the finite-horizon LQ regulator - Part II: the discrete time. , 2006, , .		1
67	A geometric approach with stability for two-dimensional systems. , 2007, , .		1
68	On the use of inversion formulae for the synthesis of discrete PID controllers. , 2013, , .		1
69	Robust eigenstructure assignment in the computation of friends of output-nulling subspaces. , 2013, , .		1
70	Robust arbitrary pole placement with the extended Kautsky-Nichols-van Dooren parametric form. , 2014, , .		1
71	On the structure of the solutions of the constrained generalized discrete-time algebraic Riccati equation. , 2016, , .		1
72	Arbitrary pole placement with the extended Kautskyâ€“Nicholsâ€“van Dooren parametric form. <i>International Journal of Control</i> , 2016, 89, 1359-1366.	1.9	1

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73	On the generalized algebraic Riccati equations * *This work was partially supported by the Australian Research Council (DPI60104994).. IFAC-PapersOnLine, 2017, 50, 9555-9560.	0.9	1
74	New results on the global monotonic tracking of MIMO systems. , 2017, , .		1
75	MIMO tracking control of LTI systems: A geometric approach. Systems and Control Letters, 2019, 126, 8-20.	2.3	1
76	Fixed poles in the disturbance decoupling by dynamic output feedback for systems with direct feedthrough matrices. Automatica, 2020, 121, 109159.	5.0	1
77	A Behavioral Approach to Estimation in the Presence of Disturbances. IEEE Transactions on Automatic Control, 2021, 66, 2795-2801.	5.7	1
78	On the sufficiency of finite-frame LQR optimality conditions for 2-D Roesser models. , 2007, , .		1
79	A tutorial on the globally monotonic tracking control problem with geometric techniques. , 2016, , .		1
80	Disturbance decoupling by state feedback and pd control law for systems with direct feedthrough matrices. , 2007, , .		0
81	On the realisation of 2-D linear systems with implicit latent variable models. , 2007, , .		0
82	Asymptotic quotient observers for 2-D Fornasini Marchesini models. , 2009, , .		0
83	Controlled and conditioned invariance with stability for two-dimensional systems. , 2009, , .		0
84	Input decoupling with PD and preview control law for non-strictly proper systems. International Journal of Control, 2010, 83, 1741-1750.	1.9	0
85	The generalised discrete algebraic Riccati equation arising in LQ optimal control problems: Part I. , 2012, , .		0
86	A reduction technique for generalised Riccati difference equations arising in linear-quadratic optimal control. , 2012, , .		0
87	The generalised discrete algebraic Riccati equation arising in LQ optimal control problems: Part II. , 2012, , .		0
88	Special issue on Multidimensional systems theory and control. Multidimensional Systems and Signal Processing, 2013, 24, 599-600.	2.6	0
89	New results in impulse-free continuous-time cheap LQ optimal control. , 2014, , .		0
90	Self-boundedness and self-hiddenness for implicit two-dimensional systems. , 2015, , .		0

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91	On the geometry of the continuous-time generalized algebraic Riccati equation arising in LQ optimal control. , 2015, , .		0
92	A new method for the row-by-row decoupling problem with pole assignment. , 2016, , .		0
93	A geometric approach to constrained tracking control. , 2016, , .		0
94	A discussion on the discrete-time finite-horizon indefinite LQ problem. , 2016, , .		0
95	New nonovershooting step response control for the DC-DC buck converter. , 2016, , .		0
96	New results in the computation of output-nulling subspaces. , 2016, , .		0
97	Geometric structure and properties of linear time invariant multivariable systems in the controller canonical form. IET Control Theory and Applications, 2017, 11, 25-37.	2.1	0
98	Geometric conditions for the existence of solutions of singular multidimensional systems. , 2017, , .		0
99	NOUS 2.0: A MATLAB® toolbox for the design of globally monotonic tracking controllers. , 2017, , .		0
100	On the Construction of Jordan Chains in the Eigenstructure Assignment for Output-Nulling Subspaces. , 2018, , .		0
101	Finite-Horizon Linear-Quadratic Optimal Control with General Boundary Conditions. , 2021, , 808-814.		0
102	On solving boundary value problems associated with generalised LQ control of 2-D systems. , 2009, , .		0
103	Computation of regular friends for output-nulling and reachability subspaces of linear time-invariant descriptor systems. , 2018, , .		0
104	On the solvability of the global monotonic tracking for subsets of output components. , 2019, , .		0
105	New results on the eigenstructure assignment in the computation of reachability output nulling subspaces. , 2019, , .		0
106	Finite-Horizon Linear-Quadratic Optimal Control with General Boundary Conditions. , 2020, , 1-7.		0
107	State-Space Estimation Using the Behavioral Approach: A Simple Particular Case. Lecture Notes in Electrical Engineering, 2021, , 210-220.	0.4	0
108	Dual lattices for non-strictly proper systems. IFAC-PapersOnLine, 2020, 53, 4392-4397.	0.9	0