Augusto Ferrante

List of Publications by Year
in descending order

99 papers	1,440 citations	361296 20 h-index	395590 33 g-index
99 all docs	99 docs citations	99 times ranked	507 citing authors

#	Article	IF	Citations
1	Hermitian solutions of the equation X = Q + NX⁻1N⁻. Linear Algebra and Its Applications, 1996, 247, 359-373.	0.4	108
2	Hellinger Versus Kullback–Leibler Multivariable Spectrum Approximation. IEEE Transactions on Automatic Control, 2008, 53, 954-967.	3.6	79
3	Some new results in the theory of negative imaginary systems with symmetric transfer matrix function. Automatica, 2013, 49, 2138-2144.	3.0	67
4	Foundations of Not Necessarily Rational Negative Imaginary Systems Theory: Relations Between Classes of Negative Imaginary and Positive Real Systems. IEEE Transactions on Automatic Control, 2016, 61, 3052-3057.	3.6	64
5	Time and Spectral Domain Relative Entropy: A New Approach to Multivariate Spectral Estimation. IEEE Transactions on Automatic Control, 2012, 57, 2561-2575.	3.6	51
6	A Globally Convergent Matricial Algorithm for Multivariate Spectral Estimation. IEEE Transactions on Automatic Control, 2009, 54, 2376-2388.	3.6	49
7	The generalised discrete algebraic Riccati equation in linear-quadratic optimal control. Automatica, 2013, 49, 471-478.	3.0	49
8	Discrete-time negative imaginary systems. Automatica, 2017, 79, 1-10.	3.0	45
9	A Maximum Entropy Enhancement for a Family of High-Resolution Spectral Estimators. IEEE Transactions on Automatic Control, 2012, 57, 318-329.	3.6	40
10	A parametrization of the solutions of the finite-horizon LQ problem with general cost and boundary conditions. Automatica, 2005, 41, 1359-1366.	3.0	39
11	A Maximum Entropy Solution of the Covariance Extension Problem for Reciprocal Processes. IEEE Transactions on Automatic Control, 2011, 56, 1999-2012.	3.6	37
12	The generalized continuous algebraic Riccati equation and impulse-free continuous-time LQ optimal control. Automatica, 2014, 50, 1176-1180.	3.0	31
13	On the Geometry of Maximum Entropy Problems. SIAM Review, 2013, 55, 415-439.	4.2	29
14	On the Error Region for Channel Estimation-Based Physical Layer Authentication Over Rayleigh Fading. IEEE Transactions on Information Forensics and Security, 2015, 10, 941-952.	4.5	29
15	On the estimation of structured covariance matrices. Automatica, 2012, 48, 2145-2151.	3.0	27
16	Parametrization of all minimal square spectral factors. Systems and Control Letters, 1993, 21, 249-254.	1.3	26
17	Explicit formulas for LMI-based H2 filtering and deconvolution. Automatica, 2001, 37, 1443-1449.	3.0	26
18	On the solution of the Riccati differential equation arising from the LQ optimal control problem. Systems and Control Letters, 2010, 59, 114-121.	1.3	25

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19	Canonical form of symplectic matrix pencils. Linear Algebra and Its Applications, 1998, 274, 259-300.	0.4	24
20	Employing the algebraic Riccati equation for a parametrization of the solutions of the finite-horizon LQ problem: the discrete-time case. Systems and Control Letters, 2005, 54, 693-703.	1.3	24
21	Identification of Sparse Reciprocal Graphical Models. , 2018, 2, 659-664.		23
22	Characterization of Stationary Discrete-Time Gaussian Reciprocal Processes over a Finite Interval. SIAM Journal on Matrix Analysis and Applications, 2002, 24, 334-355.	0.7	21
23	Algebraic Riccati Equation and J-Spectral Factorization for Hinfty Smoothing and Deconvolution. SIAM Journal on Control and Optimization, 2006, 45, 123-145.	1.1	20
24	The Extended Symplectic Pencil and the Finite-Horizon LQ Problem With Two-Sided Boundary Conditions. IEEE Transactions on Automatic Control, 2013, 58, 2102-2107.	3.6	19
25	Algebraic Riccati equation and J-spectral factorization for estimation. Systems and Control Letters, 2004, 51, 383-393.	1.3	18
26	Convergent algorithm for L2 model reduction. Automatica, 1999, 35, 75-79.	3.0	17
27	A Unified Approach to the Finite-Horizon Linear Quadratic Optimal Control Problem*. European Journal of Control, 2007, 13, 473-488.	1.6	17
28	A unified approach to finite-horizon generalized LQ optimal control problems for discrete-time systems. Linear Algebra and Its Applications, 2007, 425, 242-260.	0.4	17
29	On the Convergence of an Efficient Algorithm for Kullback–Leibler Approximation of Spectral Densities. IEEE Transactions on Automatic Control, 2011, 56, 506-515.	3.6	17
30	Continuous-time singular linear–quadratic control: Necessary and sufficient conditions for the existence of regular solutions. Systems and Control Letters, 2016, 93, 30-34.	1.3	17
31	A reduction technique for discrete generalized algebraic and difference Riccati equations. Linear and Multilinear Algebra, 2014, 62, 1460-1474.	0.5	16
32	On the Factorization of Rational Discrete-Time Spectral Densities. IEEE Transactions on Automatic Control, 2016, 61, 969-981.	3.6	16
33	Factor Models With Real Data: A Robust Estimation of the Number of Factors. IEEE Transactions on Automatic Control, 2019, 64, 2412-2425.	3.6	16
34	AsymmetricalgebraicRiccatiequation:Ahomeomorphicparametrizationofthesetof solutions. Linear Algebra and Its Applications, 2001, 329, 137-156.	0.4	15
35	On the solvability of the positive real lemma equations. Systems and Control Letters, 2002, 47, 211-219.	1.3	14
36	Further Results on the Byrnes-Georgiou-Lindquist Generalized Moment Problem. Lecture Notes in Control and Information Sciences, 2007, , 73-83.	0.6	13

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37	Silverman algorithm and the structure of discrete-time stochastic systems. Linear Algebra and Its Applications, 2002, 351-352, 219-242.	0.4	12
38	The role of terminal cost/reward in finite-horizon discrete-time LQ optimal control. Linear Algebra and Its Applications, 2007, 425, 323-344.	0.4	12
39	On the well-posedness of multivariate spectrum approximation and convergence of high-resolution spectral estimators. Systems and Control Letters, 2010, 59, 167-172.	1.3	12
40	Representation and Factorization of Discrete-Time Rational All-Pass Functions. IEEE Transactions on Automatic Control, 2017, 62, 3262-3276.	3.6	12
41	Order reduction of discrete-time algebraic Riccati equations with singular closed loop matrix. Operators and Matrices, 2007, , 61-70.	0.1	12
42	Minimum Relative Entropy for Quantum Estimation: Feasibility and General Solution. IEEE Transactions on Information Theory, 2014, 60, 357-367.	1.5	11
43	A note on finite-horizon LQ problems with indefinite cost. Automatica, 2015, 52, 290-293.	3.0	11
44	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.	3.0	11
45	Learning Latent Variable Dynamic Graphical Models by Confidence Sets Selection. IEEE Transactions on Automatic Control, 2020, 65, 5130-5143.	3.6	11
46	M<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e466" altimg="si2.svg"><mml:msup><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msup></mml:math>-spectral estimation: A relative entropy approach. Automatica, 2021, 125, 109404.	3.0	11
47	Dynamical decoupling in quantum control: A system theoretic approach. Systems and Control Letters, 2006, 55, 578-584.	1.3	10
48	On Minimal Spectral Factors With Zeroes and Poles Lying on Prescribed Regions. IEEE Transactions on Automatic Control, 2016, 61, 2251-2255.	3.6	10
49	The algebraic Riccati inequality: parametrization of solutions, tightest local frames and generalized feedback matrices. Linear Algebra and Its Applications, 1999, 292, 187-206.	0.4	9
50	Matrix Completion Ã la Dempster by the Principle of Parsimony. IEEE Transactions on Information Theory, 2011, 57, 3925-3931.	1.5	9
51	Robust Identification of â€œSparse Plus Low-rankâ€•Graphical Models: An Optimization Approach. , 2018, , .		9
52	Parametrization of Minimal Spectral Factors of Discrete-Time Rational Spectral Densities. IEEE Transactions on Automatic Control, 2019, 64, 396-403.	3.6	9
53	Fusion of Sensors Data in Automotive Radar Systems: A Spectral Estimation Approach. , 2019, , .		8
54	The discrete-time generalized algebraic Riccati equation: Order reduction and solutionsâ€™ structure. Systems and Control Letters, 2015, 75, 84-93.	1.3	7

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55	A Scalable Strategy for the Identification of Latent-Variable Graphical Models. IEEE Transactions on Automatic Control, 2022, 67, 3349-3362.	3.6	7
56	M^2 Spectral Estimation: A Flexible Approach Ensuring Rational Solutions. SIAM Journal on Control and Optimization, 2021, 59, 2977-2996.	1.1	7
57	Application of a Global Inverse Function Theorem of Byrnes and Lindquist to a Multivariable Moment Problem with Complexity Constraint. , 2010, , 153-167.		7
58	Linear Quadratic Optimization for Systems in the Behavioral Approach. SIAM Journal on Control and Optimization, 2000, 39, 159-178.	1.1	6
59	How to Steer a Quantum System over a Schrödinger Bridge. Quantum Information Processing, 2002, 1, 183-206.	1.0	6
60	Minimal representations of continuous-time processes having spectral density with zeros in the extended imaginary axis. Systems and Control Letters, 2005, 54, 511-520.	1.3	6
61	A unified approach to the finite-horizon LQ regulator - Part I: the continuous time. , 2006, , .		5
62	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.	3.6	5
63	Optimal steering for an extended class of nonholonomic systems using Lagrange functional. Automatica, 1997, 33, 1635-1646.	3.0	4
64	On the relation between additive and multiplicative decompositions of rational matrix functions. International Journal of Control, 2003, 76, 366-385.	1.2	4
65	The role of the generalised continuous algebraic Riccati equation in impulse-free continuous-time singular LQ optimal control. , 2013, , .		4
66	On the definition of negative imaginary system for not necessarily rational symmetric transfer functions. , 2013, , .		4
67	Minimal resources identifiability and estimation of quantum channels. Quantum Information Processing, 2014, 13, 683-707.	1.0	4
68	Factor analysis with finite data. , 2017, , .		4
69	On the State Space and Dynamics Selection in Linear Stochastic Models: A Spectral Factorization Approach. IEEE Transactions on Automatic Control, 2019, 64, 2509-2513.	3.6	4
70	A Direct Proof of the Equivalence of Side Conditions for Strictly Positive Real Matrix Transfer Functions. IEEE Transactions on Automatic Control, 2020, 65, 450-452.	3.6	4
71	Solvability conditions for the positive real lemma equations in the discrete time. IET Control Theory and Applications, 2017, 11, 2916-2920.	1.2	3
72	Families of solutions of algebraic Riccati equations. Systems and Control Letters, 2019, 127, 35-38.	1.3	3

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73	The geometry of the generalized algebraic Riccati equation and of the singular Hamiltonian system. Linear and Multilinear Algebra, 2019, 67, 158-174.	0.5	3
74	New Results on the Characterization of Strictly Positive Real Matrix Transfer Functions. IEEE Transactions on Automatic Control, 2021, 66, 335-339.	3.6	3
75	Reachability matrices and cyclic matrices. Electronic Journal of Linear Algebra, 0, 20, .	0.6	3
76	A Homeomorphic Characterization Of Minimal Spectral Factors. SIAM Journal on Control and Optimization, 1997, 35, 1508-1523.	1.1	2
77	Estimation of quantum channels: Identifiability and ML methods. , 2012, , .		2
78	Conal Distances Between Rational Spectral Densities. IEEE Transactions on Automatic Control, 2019, 64, 1848-1857.	3.6	2
79	Constrained spectrum approximation in the Hellinger distance. , 2007, , .		2
80	Link Prediction: A Graphical Model Approach. , 2020, , .		2
81	A unified approach to the finite-horizon LQ regulator - Part II: the discrete time. , 2006, , .		1
82	Generalized Finite-Horizon Linear-Quadratic Optimal Control. , 2013, , 1-8.		1
83	On the structure of the solutions of the constrained generalized discrete-time algebraic Riccati equation. , 2016, , .		1
84	Algebraic Riccati equation and J-spectral factorization for H<sub>&#x0221E;</sub> smoothing and deconvolution. , 2006, , .		0
85	A new metric for multivariate spectral estimation leading to lowest complexity spectra. , 2011, , .		0
86	An efficient algorithm for dempster's completion of block-circulant covariance matrices. , 2011, , .		0
87	The generalised discrete algebraic Riccati equation arising in LQ optimal control problems: Part I. , 2012, , .		0
88	A reduction technique for generalised Riccati difference equations arising in linear-quadratic optimal control. , 2012, , .		0
89	The generalised discrete algebraic Riccati equation arising in LQ optimal control problems: Part II. , 2012, , .		0
90	Roth's similarity theorem and rank minimization in the presence of nonderogatory or semisimple eigenvalues. Linear and Multilinear Algebra, 2013, 61, 217-231.	0.5	0

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91	New results in impulse-free continuous-time cheap LQ optimal control. , 2014, , .		0
92	On the geometry of the continuous-time generalized algebraic Riccati equation arising in LQ optimal control. , 2015, , .		0
93	A discussion on the discrete-time finite-horizon indefinite LQ problem. , 2016, , .		0
94	Finite-Horizon Linear-Quadratic Optimal Control with General Boundary Conditions. , 2021, , 808-814.		0
95	A Maximum Entropy Solution of the Covariance Selection Problem for Reciprocal Processes. , 2010, , 77-93.		0
96	Multivariate Itakura-Saito distance for spectral estimation: Relation between time and spectral domain relative entropy rates. Proceedings of the ISCIE International Symposium on Stochastic Systems Theory and Its Applications, 2012, 2012, 350-355.	0.1	0
97	New results on the eigenstructure assignment in the computation of reachability output nulling subspaces. , 2019, , .		0
98	Finite-Horizon Linear-Quadratic Optimal Control with General Boundary Conditions. , 2020, , 1-7.		0
99	Space and spectral domain relative entropy for homogeneous random fields. Automatica, 2020, 122, 109226.	3.0	0