Mario Sznaier

List of Publications by Year in Descending Order

118 papers	1,491 citations	20 h-index	33 g-index
133 ext. papers	1,892 ext. citations	3.9 avg, IF	4.89 L-index

#	Paper	IF	Citations
118	Decomposed structured subsets for semidefinite and sum-of-squares optimization. *Automatica*, **2022**, 137, 110125	5.7	0
117	A convex optimization approach to synthesizing state feedback data-driven controllers for switched linear systems. *Automatica*, **2022**, 139, 110190	5.7	0
116	A Semi-Algebraic Optimization Approach to Data-Driven Control of Continuous-Time Nonlinear Systems **2021**, 5, 487-492		9
115	On Identification of Nonlinear ARX Models with Sparsity in Regressors and Basis Functions. *IFAC-PapersOnLine*, **2021**, 54, 720-725	0.7	0
114	Peak Estimation Recovery and Safety Analysis **2021**, 5, 1982-1987		3
113	Control Oriented Learning in the Era of Big Data **2021**, 5, 1855-1867		3
112	Data-Driven Quadratic Stabilization of Continuous LTI Systems. *IFAC-PapersOnLine*, **2020**, 53, 3965-3970	0.7	2
111	Key Frame Proposal Network for Efficient Pose Estimation in Videos. *Lecture Notes in Computer Science*, **2020**, 609-625	0.9	2
110	Decomposed Structured Subsets for Semidefinite Optimization. *IFAC-PapersOnLine*, **2020**, 53, 7374-7379	0.7	1
109	An Algebraic Approach to Efficient Identification of a Class of Wiener Systems. *IFAC-PapersOnLine*, **2020**, 53, 1138-1143	0.7	
108	Continuous-time model identification: application on a behavioural (miLife) study. *International Journal of Control*, **2020**, 1-12	1.5	1
107	A Loewner Matrix Based Convex Optimization Approach to Finding Low Rank Mixed Time/Frequency Domain Interpolants **2020**,		1
106	Efficient Identification of Error-in-Variables Switched Systems via a Sum-of-Squares Polynomial Based Subspace Clustering Method **2019**,		1
105	An Atomic Norm Minimization Framework for Identification of Parameter Varying Nonlinear ARX Models. *IFAC-PapersOnLine*, **2019**, 52, 1-6	0.7	
104	Hankel Matrix Rank as Indicator of Ghost in Bearing-only Tracking. *IEEE Transactions on Aerospace and Electronic Systems*, **2018**, 54, 2713-2723	3.7	2
103	Convex Optimization Approaches to Information Structured Decentralized Control. *IEEE Transactions on Automatic Control*, **2018**, 63, 3393-3403	5.9	9
102	A Randomized Algorithm for Parsimonious Model Identification. *IEEE Transactions on Automatic Control*, **2018**, 63, 532-539	5.9	9

101	DYAN: A Dynamical Atoms-Based Network for Video Prediction. *Lecture Notes in Computer Science*, **2018**, 175-191	0.9	8
100	A Moments Based Approach to Designing MIMO Data Driven Controllers for Switched Systems **2018**,		17
99	SoS-RSC: A Sum-of-Squares Polynomial Approach to Robustifying Subspace Clustering Algorithms **2018**,		5
98	Unsupervised Fault Detection of Refrigeration Containers using a Mahalanobis Inverse Moment Matrix Polynomial. *IFAC-PapersOnLine*, **2018**, 51, 249-254	0.7	1
97	Data Driven Robust Superstable Control of Switched Systems. *IFAC-PapersOnLine*, **2018**, 51, 402-408	0.7	4
96	System Identification Algorithm for Non-Uniformly Sampled Data. *IFAC-PapersOnLine*, **2017**, 50, 7296-7301	0.7	1
95	Suboptimal l □d □Control of Switched Linear Models: a Superstability Approach * *This work was supported in part by NSF grants IIS□1318145, ECCS□1404163, CMMI□1638234 CNS-1329422 and ECCS-1201973; AFOSR grant FA9550-15-1-0392; and the Alert DHS Center of Excellence under Award Number 2013-ST-061-ED0001.. *IFAC-PapersOnLine*, **2017**, 50, 14380-14385	0.7	
94	moM: Mean of Moments Feature for Person Re-identification **2017**,		4
93	An efficient approach to the radar ghost elimination problem **2016**,		2
92	Subspace Clustering with Priors via Sparse Quadratically Constrained Quadratic Programming **2016**,		7
91	A super-atomic norm minimization approach to identifying sparse dynamical graphical models **2016**,		2
90	Solving Temporal Puzzles **2016**,		2
89	Efficient Temporal Sequence Comparison and Classification Using Gram Matrix Embeddings on a Riemannian Manifold **2016**,		34
88	Set membership identification of switched linear systems with known number of subsystems. *Automatica*, **2015**, 51, 180-191	5.7	39
87	Robust Superstabilizing Controller Design from Open-Loop Experimental Input/Output Data**This work was supported in part by NSF grants IIS-1318145and ECCS-1404163; AFOSR grant FA9550-12-1-0271, and the Alert DHS Center of Excellence under Award Number 2008-ST-061-ED0001.. *IFAC-PapersOnLine*, **2015**, 48, 1337-1342	0.7	3
86	Identification of a class of generalized autoregressive conditional heteroskedasticity (GARCH) models with applications to covariance propagation **2015**,		1
85	Efficient identification of Wiener systems using a combination of atomic norm minimization and interval matrix properties **2015**,		1
84	The Interplay Between Big Data and Sparsity in Systems Identification: Some Lessons from Machine Learning**This work was supported in part by NSF grants IIS-1318145and ECCS-1404163; AFOSR grant FA9550-12-1-0271, and the Alert DHS Center of Excellence under Award Number 2008-ST-061-ED0001.. *IFAC-PapersOnLine*, **2015**, 48, 1285-1292	0.7	1

83	Convex Certificates for Model (In)validation of Switched Affine Systems With Unknown Switches. *IEEE Transactions on Automatic Control*, **2014**, 59, 2921-2932	5.9	21
82	Probabilistic Optimal Estimation With Uniformly Distributed Noise. *IEEE Transactions on Automatic Control*, **2014**, 59, 2113-2127	5.9	7
81	Fast Structured Nuclear Norm Minimization With Applications to Set Membership Systems Identification. *IEEE Transactions on Automatic Control*, **2014**, 59, 2837-2842	5.9	12
80	Sparse static output feedback controller design via convex optimization **2014**,		10
79	Parsimonious model identification via atomic norm minimization **2014**,		7
78	An obstacle avoidance and motion planning Command Governor based scheme: The Qball-X4 quadrotor case of study **2014**,		4
77	A computer vision approach to rare cell in vivo fluorescence flow cytometry. *Cytometry Part A: the Journal of the International Society for Analytical Cytology*, **2013**, 83, 1113-23	4.6	16
76	The Way They Move: Tracking Multiple Targets with Similar Appearance **2013**,		161
75	Hankel based maximum margin classifiers: A connection between machine learning and Wiener systems identification **2013**,		3
74	Finding Causal Interactions in Video Sequences **2013**,		7
73	An efficient atomic norm minimization approach to identification of low order models **2013**,		8
72	Fast algorithms for structured robust principal component analysis **2012**,		17
71	A Sparsification Approach to Set Membership Identification of Switched Affine Systems. *IEEE Transactions on Automatic Control*, **2012**, 57, 634-648	5.9	66
70	A Convex Optimization Approach to Synthesizing Bounded Complexity ell^{infty} Filters. *IEEE Transactions on Automatic Control*, **2012**, 57, 216-221	5.9	12
69	A convex optimization approach to model (in)validation of switched ARX systems with unknown switches **2012**,		7
68	Cross-view activity recognition using Hankelets **2012**,		3
67	An algorithm for fast constrained nuclear norm minimization and applications to systems identification **2012**,		11
66	Identification and model (in)validation of switched ARX systems: A moment-based approach **2011**, 347-379		1

65	Dynamic subspace-based coordinated multicamera tracking **2011**,		27
64	A rank minimization approach to trajectory (in)validation **2011**,		3
63	Activity recognition using dynamic subspace angles **2011**,		36
62	Low order dynamics embedding for high dimensional time series **2011**,		6
61	Convex relaxations for robust identification of Wiener systems and applications **2011**,		5
60	Dynamics-based extraction of information sparsely encoded in high dimensional data streams **2010**,		4
59	A moments-based approach to estimation and data interpolation for a class of Wiener systems **2010**,		1
58	Model (in) validation of switched ARX systems with unknown switches and its application to activity monitoring **2010**,		13
57	Call for Papers: Special Issue on System Identification for Biological Systems *International Journal of Robust and Nonlinear Control*, **2010**, 20, 842-842	3.6	
56	A convex optimization approach to synthesizing bounded complexity filters **2009**,		1
55	Using dynamics to recover Euclidian 3-dimensional structure from 2-dimensional perspective projections **2009**,		2
54	Computational complexity analysis of set membership identification of Hammerstein and Wiener systems. *Automatica*, **2009**, 45, 701-705	5.7	27
53	Risk Adjusted Set Membership Identification of Wiener Systems. *IEEE Transactions on Automatic Control*, **2009**, 54, 1147-1152	5.9	8
52	Sequential sparsification for change detection **2008**,		10
51	Fast track matching and event detection **2008**,		2
50	A risk adjusted approach to robust simultaneous fault detection and isolation. *Automatica*, **2007**, 43, 499-504	5.7	13
49	A pessimistic approach to frequency domain model (in)validation **2007**,		2
48	A Rank Minimization Approach to Video Inpainting **2007**,		31

47	Risk Adjusted Identification of Wiener Systems **2006**,		5
46	Robust Identification of 2-D Periodic Systems with Applications to Texture Synthesis and Classification **2006**,		8
45	Probabilistically Constrained Linear Programs and Risk-Adjusted Controller Design. *SIAM Journal on Optimization*, **2005**, 15, 938-951	2	46
44	An algorithm for sampling subsets of H/sub /spl infin// with applications to risk-adjusted performance analysis and model (in)validation. *IEEE Transactions on Automatic Control*, **2005**, 50, 410-416	5.9	17
43	Convex necessary and sufficient conditions for frequency domain model (in)validation under SLTV structured uncertainty. *IEEE Transactions on Automatic Control*, **2004**, 49, 1683-1692	5.9	4
42	Segmentation for robust tracking in the presence of severe occlusion. *IEEE Transactions on Image Processing*, **2004**, 13, 166-78	8.7	39
41	Open-loop worst-case identification of nonSchur plants. *Automatica*, **2003**, 39, 1019-1025	5.7	7
40	On the design of robust controllers for arbitrary uncertainty structures. *IEEE Transactions on Automatic Control*, **2003**, 48, 2061-2065	5.9	5
39	. *IEEE Transactions on Automatic Control*, **2003**, 48, 355-368	5.9	9
38	An LMI approach to control-oriented identification and model (In) validation of LPV systems. *IEEE Transactions on Automatic Control*, **2003**, 48, 1619-1624	5.9	35
37	A convex approach to robust performance analysis. *Automatica*, **2002**, 38, 957-966	5.7	12
36	An improved Voronoi-diagram-based neural net for pattern classification. *IEEE Transactions on Neural Networks*, **2001**, 12, 1227-34		6
35	. *IEEE Transactions on Control Systems Technology*, **2001**, 9, 608-617	4.8	16
34	A linear matrix inequality approach to synthesizing low-order suboptimal mixed □/Hp controllers. *Automatica*, **2000**, 36, 957-963	5.7	12
33	Is set modeling of white noise a good tool for robust H2 analysis?. *Automatica*, **2000**, 36, 261-267	5.7	4
32	Receding Horizon Control Lyapunov Function Approach to Suboptimal Regulation of Nonlinear Systems. *Journal of Guidance, Control, and Dynamics*, **2000**, 23, 399-405	2.1	20
31	An exact solution to continuous-time mixed H/sub 2//H/sub /spl infin// control problems. *IEEE Transactions on Automatic Control*, **2000**, 45, 2095-2101	5.9	12
30	A convex optimization approach to fixed-order controller design for disturbance rejection in SISO systems. *IEEE Transactions on Automatic Control*, **2000**, 45, 784-789	5.9	19

29	A parametric extension of mixed time/frequency robust identification. *IEEE Transactions on Automatic Control*, **1999**, 44, 364-369	5.9	18
28	Mixed Time/Frequency-Domain Based Robust Identification. *Automatica*, **1998**, 34, 1375-1389	5.7	34
27	An exact solution to general four-block discrete-time mixed /spl Hscr//sub 2///spl Hscr//sub /spl infin// problems via convex optimization. *IEEE Transactions on Automatic Control*, **1998**, 43, 1475-1480	5.9	16
26	. *IEEE Transactions on Automatic Control*, **1998**, 43, 1229-1241	5.9	17
25	Robust controller design for a parallel resonant converter using /spl mu/-synthesis. *IEEE Transactions on Power Electronics*, **1997**, 12, 837-853	7.2	18
24	L□Optimal control of SISO continuous-time systems. *Automatica*, **1997**, 33, 85-90	5.7	10
23	Robust performance with fixed and worst-case signals for uncertain time-varying systems. *Automatica*, **1997**, 33, 2183-2189	5.7	20
22	Rational L/sub /spl infin//-suboptimal controllers for SISO continuous-time systems. *IEEE Transactions on Automatic Control*, **1996**, 41, 1358-1363	5.9	8
21	. *IEEE Transactions on Aerospace and Electronic Systems*, **1996**, 32, 702-713	3.7	8
20	Robust unconstrained predictive control design with guranteed nominal performance. *AICHE Journal*, **1996**, 42, 1293-1303	3.6	7
19	H2/H□filtering theory and an aerospace application. *International Journal of Robust and Nonlinear Control*, **1996**, 6, 347-366	3.6	36
18	Robust controller design for a non-colocated spring-mass system via mixed ?/□ptimization. *International Journal of Robust and Nonlinear Control*, **1995**, 5, 53-65	3.6	5
17	Robust control of constrained systems via convex optimization. *International Journal of Robust and Nonlinear Control*, **1995**, 5, 441-460	3.6	2
16	Mixed H2/H - infinity control of multimodel plants. *Journal of Guidance, Control, and Dynamics*, **1995** , 18, 525-531	2.1	13
15	. *IEEE Transactions on Automatic Control*, **1995**, 40, 552-557	5.9	6
14	. *IEEE Transactions on Automatic Control*, **1995**, 40, 1127-1131	5.9	43
13	Mixed L/□H□suboptimal controllers for SISO continuous-time systems. *IEEE Transactions on Automatic Control*, **1995**, 40, 1831-1840	5.9	7
12	Mixed controllers for SISO discrete time systems. *Systems and Control Letters*, **1994**, 23, 179-186	2.4	13

11	. *IEEE Transactions on Automatic Control*, **1994**, 39, 1487-1492	5.9	26
10	. *IEEE Transactions on Automatic Control*, **1994**, 39, 2511-2517	5.9	31
9	. *IEEE Transactions on Automatic Control*, **1994**, 39, 1497-1502	5.9	12
8	Heuristically enhanced feedback control of constrained systems: The minimum time case. *Automatica*, **1993**, 29, 439-444	5.7	3
7	Set-Induced Norm Based Robust Control Techniques. *Control and Dynamic Systems*, **1993**, 55, 305-353		
6	. *IEEE Transactions on Automatic Control*, **1992**, 37, 1057-1062	5.9	7
5	An analog neural net-based suboptimal controller for constrained discrete-time linear systems. *Automatica*, **1992**, 28, 139-144	5.7	7
4	Correspondence Comments on "Robust optimal parametric LQ control with a guaranteed cost bound and applications" *International Journal of Control*, **1991**, 54, 1309-1312	1.5	
3	Heuristically enhanced feedback control of constrained discrete-time linear systems. *Automatica*, **1990**, 26, 521-532	5.7	72
2	Control of constrained discrete time linear systems using quantized controls. *Automatica*, **1989**, 25, 623-628	5.7	19
1	. *IEEE Transactions on Automation Science and Engineering*, **1989**, 5, 253-259		15