

Francisco R Rubio

List of Publications by Year in descending order

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113
papers

3,333
citations

201385

27
h-index

155451

55
g-index

120
all docs

120
docs citations

120
times ranked

2310
citing authors

#	ARTICLE	IF	CITATIONS
1	An integral predictive/nonlinear H_{∞} control structure for a quadrotor helicopter. Automatica, 2010, 46, 29-39.	3.0	666
2	A survey on control schemes for distributed solar collector fields. Part I: Modeling and basic control approaches. Solar Energy, 2007, 81, 1240-1251.	2.9	201
3	Formation Control of Autonomous Underwater Vehicles Subject to Communication Delays. IEEE Transactions on Control Systems Technology, 2014, 22, 770-777.	3.2	172
4	A survey on control schemes for distributed solar collector fields. Part II: Advanced control approaches. Solar Energy, 2007, 81, 1252-1272.	2.9	166
5	Application of new control strategy for sun tracking. Energy Conversion and Management, 2007, 48, 2174-2184.	4.4	151
6	Advanced Control of Solar Plants. Advances in Industrial Control, 1997, , .	0.4	119
7	An artificial vision-based control system for automatic heliostat positioning offset correction in a central receiver solar power plant. Solar Energy, 2004, 76, 563-575.	2.9	101
8	Self-tuning control of a solar power plant with a distributed collector field. IEEE Control Systems, 1992, 12, 72-78.	1.0	97
9	Distributed consensus-based estimation considering network induced delays and dropouts. Automatica, 2012, 48, 2726-2729.	3.0	95
10	Control of Solar Energy Systems. Advances in Industrial Control, 2012, , .	0.4	91
11	Backstepping/nonlinear H_{∞} control for path tracking of a quadrotor unmanned aerial vehicle. , 2008, , .		83
12	Fuzzy logic control of a solar power plant. IEEE Transactions on Fuzzy Systems, 1995, 3, 459-468.	6.5	79
13	Application of a gain scheduling generalized predictive controller to a solar power plant. Control Engineering Practice, 1994, 2, 227-238.	3.2	77
14	Systematic design of weighting matrices for the H_{∞} mixed sensitivity problem. Journal of Process Control, 2004, 14, 89-98.	1.7	67
15	D-OSKIL: A New Mechanism for Controlling Stick-Slip Oscillations in Oil Well Drillstrings. IEEE Transactions on Control Systems Technology, 2008, 16, 1177-1191.	3.2	67
16	Path Tracking of a UAV via an Underactuated Control Strategy. European Journal of Control, 2011, 17, 194-213.	1.6	54
17	Temperature control of a solar furnace. IEEE Control Systems, 1999, 19, 8-24.	1.0	50
18	Sensor-network-based robust distributed control and estimation. Control Engineering Practice, 2013, 21, 1238-1249.	3.2	44

#	ARTICLE	IF	CITATIONS
19	Robust Nonlinear Control for Path Tracking of a Quad-Rotor Helicopter. Asian Journal of Control, 2015, 17, 142-156.	1.9	42
20	Nonlinear H [∞] Controller for the Quad-Rotor Helicopter with Input Coupling*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 13834-13839.	0.4	38
21	Chaotic motion in an adaptive control system. International Journal of Control, 1985, 42, 353-360.	1.2	33
22	Nonlinear $\langle \text{mml:math altimg="si1.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/xml/common/struct-ce/dtd" \rangle$ controller for robot manipulators via saturation functions. Journal of Field Robotics, 2005, 22, 421-437.	3.0	32
23	Dead-time compensation for ABR traffic control over ATM networks. Control Engineering Practice, 2002, 10, 481-491.	3.2	31
24	Delta-Modulation Coding Redesign for Feedback-Controlled Systems. IEEE Transactions on Industrial Electronics, 2009, 56, 2684-2696.	5.2	31
25	Robustness improvement of a nonlinear H [∞] controller for robot manipulators via saturation functions. Journal of Field Robotics, 2005, 22, 421-437.	0.7	30
26	Two-wheeled self-balanced pendulum workspace improvement via underactuated robust nonlinear control. Control Engineering Practice, 2015, 44, 231-242.	3.2	30
27	MPC with Nonlinear \hat{A}, \hat{B} Control for Path Tracking of a Quad-Rotor Helicopter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 8564-8569.	0.4	29
28	Adaptive Delta Modulation in Networked Controlled Systems With bounded Disturbances. IEEE Transactions on Automatic Control, 2011, 56, 129-134.	3.6	29
29	Spectral convergence for a general class of random matrices. Statistics and Probability Letters, 2011, 81, 592-602.	0.4	29
30	Distributed estimation in networked systems under periodic and event-based communication policies. International Journal of Systems Science, 2015, 46, 139-151.	3.7	28
31	Design and Application of Suboptimal Mixed H_2/H_∞ Controllers for Networked Control Systems. IEEE Transactions on Control Systems Technology, 2012, 20, 1057-1065.	3.2	27
32	Reduced-order H_2/H_∞ distributed observer for sensor networks. International Journal of Control, 2013, 86, 1870-1879.	1.2	26
33	Modeling of a Cocurrent Rotary Dryer. Drying Technology, 2012, 30, 839-849.	1.7	25
34	Optimal control applied to distributed solar collector fields with partial radiation. Solar Energy, 2018, 159, 811-819.	2.9	25
35	Improved design of the weighting matrices for the S/KS/T mixed sensitivity problem-application to a multivariable thermodynamic system. IEEE Transactions on Control Systems Technology, 2006, 14, 82-90.	3.2	24
36	Multivariable analysis and H [∞] control of a one-stage refrigeration cycle. Applied Thermal Engineering, 2015, 91, 1156-1167.	3.0	24

#	ARTICLE	IF	CITATIONS
37	Robust stability of nonlinear time-varying delay systems with interval time-varying delay. International Journal of Robust and Nonlinear Control, 2011, 21, 709-724.	2.1	21
38	Adaptive Delta-modulation Coding for Networked Controlled Systems. , 2007, , .		20
39	Multivariable robust control of a rotary dryer: Analysis and design. Control Engineering Practice, 2007, 15, 487-500.	3.2	19
40	Solar Energy Fundamentals. Advances in Industrial Control, 2012, , 1-23.	0.4	19
41	Distributed Control and Estimation Scheme With Applications to Process Control. IEEE Transactions on Control Systems Technology, 2015, 23, 1563-1570.	3.2	15
42	Suboptimal distributed control and estimation: application to a four coupled tanks system. International Journal of Systems Science, 2016, 47, 1755-1771.	3.7	15
43	Bifurcation analysis of a feedback system with dead zone and saturation. IEEE Control Systems, 2000, 20, 91-101.	1.0	14
44	Periodicity of Kalman-based scheduled filters. Automatica, 2014, 50, 2672-2676.	3.0	14
45	Event-based H_2 controllers for networked control systems. International Journal of Control, 2014, 87, 2488-2498.	1.2	13
46	Scheduled Communication in Sensor Networks. IEEE Transactions on Control Systems Technology, 2014, 22, 801-808.	3.2	12
47	Stochastic MPC with applications to process control. International Journal of Control, 2015, 88, 792-800.	1.2	12
48	Control Óptimo Aplicado a Campos de Colectores Solares Distribuidos. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2018, 15, 327.	0.6	11
49	Auto-calibration method for high concentration sun trackers. Solar Energy, 2020, 198, 311-323.	2.9	10
50	D-OSKIL: a New Mechanism for Suppressing Stick-Slip in Oil Well Drillstrings. , 0, , .		9
51	Application of position and inertial-rate control to a 2-DOF gyroscopic platform. Robotics and Computer-Integrated Manufacturing, 2010, 26, 344-353.	6.1	9
52	Controllability analysis and robust control of a one-stage refrigeration system. European Journal of Control, 2015, 26, 53-62.	1.6	9
53	Optimum operating temperature of parabolic trough solar fields. Solar Energy, 2017, 158, 295-302.	2.9	9
54	Self-triggered sampling selection based on quadratic programming*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 8896-8901.	0.4	8

#	ARTICLE	IF	CITATIONS
55	Control Issues in Solar Systems. Advances in Industrial Control, 2012, , 25-47.	0.4	8
56	Distributed consensus-based switched observers for freeway traffic density estimation. , 2015, , .		8
57	Control for discrete TDS with application to networked control systems: Periodic and asynchronous communication. Optimal Control Applications and Methods, 2015, 36, 60-76.	1.3	8
58	LQG/LTR control of ship steering autopilots. , 0, , .		7
59	Networked predictive control of systems with data dropouts. , 2008, , .		7
60	Design, automation and control of a two-stage, two-load-demand experimental refrigeration plant. , 2015, , .		7
61	Switched observer-based ramp metering controllers for freeway systems. , 2016, , .		7
62	Design of a combined tracking control system. Control Engineering Practice, 1997, 5, 23-31.	3.2	6
63	Control no lineal robusto de una maqueta de helicóptero con rotores de velocidad variable. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2007, 4, 46-60.	0.6	6
64	Nonlinear ∞ - ∞ control applied to the Personal Pendulum Car. , 2007, , .		6
65	Delay-dependent robust stability analysis for systems with interval delays. , 2010, , .		6
66	Variable structure observer for discrete-time multi-output systems. , 2012, , .		6
67	Autonomous path tracking control design for a comercial quadcoptera —a — This work was partially supported by the Spanish Ministry of Education (MECD) under national research projects DPI2012-37580-C02 and DPI2013-44135-R. Corresponding authors are with the Department of Systems Engineering and Automation. University of Seville, Spain. (e-mail: rubio@us.es). IFAC-PapersOnLine, 2015, 48, 72-78.	0.5	6
68	Optimum Control of Parabolic Trough Solar Fields with Partial Radiation * *This work was supported by the projects DPI2013-44135-R and DPI2015-70973-R granted by the Spanish Ministry of Science and Innovation. IFAC-PapersOnLine, 2017, 50, 109-114.	0.5	6
69	Guaranteed Quadrotor Position Estimation Based on GPS Refreshing Measurements — —The authors would like to thank the MCEI for funding this work through projects DPI2010-19154 and DPI2012-37580-C02-02, as well as FAPEMIG and Programa Institucional de Auxílio À Pesquisa de Doutores Recém Contratados of the PRPq/UFMG. IFAC-PapersOnLine, 2015, 48, 67-72.	0.5	5
70	Modeling and simulation of parabolic trough solar fields with partial radiation. , 2016, , .		5
71	Model predictive control with state estimation for freeway systems. , 2017, , .		5
72	Power feedback strategy based on efficiency trajectory analysis for HCPV sun tracking. Renewable Energy, 2020, 161, 65-76.	4.3	5

#	ARTICLE	IF	CITATIONS
73	Control of resonant converters using the LQG/LTR method. , 0, , .		4
74	An H/sub ∞ / controller for a double rotor system. , 0, , .		4
75	Asynchronous networked control of linear systems via L2-gain-based transformations: analysis and synthesis. IET Control Theory and Applications, 2011, 5, 647-654.	1.2	4
76	A distributed parameters model for soil water content: Spatial and temporal variability analysis. Agricultural Water Management, 2017, 183, 101-106.	2.4	4
77	NONLINEAR H_{∞} MEASUREMENT FEEDBACK CONTROL OF EULER-LAGRANGE SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 391-396.	0.4	3
78	Model-based networked control systems under parametric uncertainties. , 2009, , .		3
79	Control Predictivo en Cascada de un Vehículo Autónomo. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2009, 6, 63-74.	0.6	3
80	A CLT on the SINR of the diagonally loaded Capon/MVDR beamformer. , 2011, , .		3
81	An H_{∞} suboptimal robust control approach for systems with uncertainties and data dropouts. International Journal of Systems Science, 2015, 46, 1971-1981.	3.7	3
82	Comparison of control strategies for HCPV sun tracking. European Journal of Control, 2021, 62, 165-170.	1.6	3
83	Advanced Control of Parabolic Troughs. Advances in Industrial Control, 2012, , 129-238.	0.4	2
84	Basic Control of Parabolic Troughs. Advances in Industrial Control, 2012, , 67-127.	0.4	2
85	Energy efficiency and quality of service optimization for constant bit rate real-time applications in 802.11 networks. Wireless Communications and Mobile Computing, 2014, 14, 583-595.	0.8	2
86	Modeling and Control of the tPVTOL—This work was partially supported by the spanish Ministry of Education (MECD) under national research projects DPI2012 $\hat{=}$ 37580 $\hat{=}$ C02 $\hat{=}$ 02 and DPI2013 $\hat{=}$ 44135 $\hat{=}$ R.. IFAC-PapersOnLine, 2015, 48, 150-155.		2
87	Agent-based guaranteed estimation and control of nonlinear systems. , 2015, , .		2
88	Guaranteed Estimation for Distributed Networked Control Systems. Lecture Notes in Electrical Engineering, 2015, , 231-240.	0.3	2
89	Improving the Performance of Orbitally-Stabilizing Controls for the Furuta Pendulum. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 81-86.	0.4	1
90	Optimal networked control of a 2 degree-of-freedom direct drive robot manipulator. , 2010, , .		1

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91	Stability and Performance of Networked Control Systems with Time-multiplexed Sensors and Oversampled Observer*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9200-9205.	0.4	1
92	A variable structure observer for unknown input estimation in sampled systems. , 2012, , .		1
93	Improved H_2 Control Design for Time Delay Systems: Synthesis and Analysis. , 2014, , .		1
94	An asynchronous technique for distributed estimation based on zonotopes. , 2015, , .		1
95	Multi-operating-point robust control of a one-stage refrigeration cycle. , 2015, , .		1
96	Kalman-inspired distributed set-membership observers. , 2016, , .		1
97	Optimal Control of Solar Thermal Plants with Energy Storage. , 2018, , .		1
98	Control of Central Receiver Systems. Advances in Industrial Control, 2012, , 239-313.	0.4	1
99	Flying Chameleons: A New Concept for Minimum-Deployment, Multiple-Target Tracking Drones. Sensors, 2022, 22, 2359.	2.1	1
100	Implementing the CORBA notification service for JavaIDL. , 0, , .		0
101	A combined H_∞ QFT control of a rotary dryer. , 0, , .		0
102	Computed-Torque Scheme for 6 DOF Hybrid Feature/Position-Based Visual Servoing. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 157-164.	0.4	0
103	Stability of the D-OSKIL Oscillation Suppression Mechanism for Oil Well Drillstrings. , 2006, , .		0
104	An algorithm to compensate for large data dropouts in Networked control systems. , 2008, , .		0
105	Asynchronous control of unstable linear systems via L_2 -gain-based transformations. , 2009, , .		0
106	Asymptotic analysis and consistent estimation of high-dimensional Markowitz portfolios. , 2011, , .		0
107	Mixed H_2/H_∞ robust control approach for NCS with uncertainties and data dropouts*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 13269-13274.	0.4	0
108	A robust filter and controller design for NCS with uncertainties and data dropouts. , 2011, , .		0

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109	Integrated Control of Solar Systems. Advances in Industrial Control, 2012, , 369-385.	0.4	0
110	Other Solar Applications. Advances in Industrial Control, 2012, , 315-368.	0.4	0
111	Photovoltaics. Advances in Industrial Control, 2012, , 49-66.	0.4	0
112	Control de Posición e Inercial de Plataforma de Dos Grados de Libertad. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2010, 7, 65-73.	0.6	0
113	Calibration-Free HCPV Sun Tracking Strategy. Lecture Notes in Electrical Engineering, 2021, , 170-179.	0.3	0