

Lalo Magni

List of Publications by Year in descending order

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113
papers

7,326
citations

53794

45
h-index

58581

82
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114
all docs

114
docs citations

114
times ranked

3449
citing authors

#	ARTICLE	IF	CITATIONS
1	Adaptive and Individualized Artificial Pancreas for Precision Management of Type 1 Diabetes. , 2022, , 305-313.		2
2	Artificial Pancreas: <i>In Silico</i> Study Shows No Need of Meal Announcement and Improved Time in Range of Glucose With Intraperitoneal vs. Subcutaneous Insulin Delivery. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 306-314.	3.2	15
3	Therapy-driven Deep Glucose Forecasting. Engineering Applications of Artificial Intelligence, 2020, 87, 103255.	8.1	32
4	Postprandial Glucose Regulation via KNN Meal Classification in Type 1 Diabetes. , 2019, 3, 230-235.		23
5	Hypoglycemia Prevention via Personalized Glucose-Insulin Models Identified in Free-Living Conditions. Journal of Diabetes Science and Technology, 2019, 13, 1008-1016.	2.2	12
6	Deployment of modular MPC for type 1 diabetes control: the Italian experience 2008â€“2016. , 2019, , 153-182.		2
7	Industry 4.0: Mathematical model for monitoring sterilization processes. , 2019, , .		2
8	Improving Diabetes Conventional Therapy via Machine Learning Modeling. , 2019, , .		2
9	Model individualization for artificial pancreas. Computer Methods and Programs in Biomedicine, 2019, 171, 133-140.	4.7	39
10	Individualized model predictive control for the artificial pancreas: In silico evaluation of closed-loop glucose control. IEEE Control Systems, 2018, 38, 86-104.	0.8	77
11	Toward a Run-to-Run Adaptive Artificial Pancreas: In Silico Results. IEEE Transactions on Biomedical Engineering, 2018, 65, 479-488.	4.2	84
12	Model predictive control with integral action for artificial pancreas. Control Engineering Practice, 2018, 77, 86-94.	5.5	46
13	Asynchronous Networked MPC With ISM for Uncertain Nonlinear Systems. IEEE Transactions on Automatic Control, 2017, 62, 4305-4317.	5.7	64
14	Individually Adaptive Artificial Pancreas in Subjects with Type 1 Diabetes: A One-Month Proof-of-Concept Trial in Free-Living Conditions. Diabetes Technology and Therapeutics, 2017, 19, 560-571.	4.4	56
15	Automatic adaptation of basal therapy for Type 1 diabetic patients: A Run-to-Run approach. Biomedical Signal Processing and Control, 2017, 31, 539-549.	5.7	30
16	Artificial Pancreas: from Control-to-Range to Control-to-Target * *Corresponding author: Gian Paolo Incremona, Dipartimento di Ingegneria Industriale e dellâ€™Informazione, University of Pavia, Via Ferrata 5, 27100 Pavia, Italy. IFAC-PapersOnLine, 2017, 50, 7737-7742.	0.9	5
17	Remote Blood Glucose Monitoring in mHealth Scenarios: A Review. Sensors, 2016, 16, 1983.	3.8	37
18	Optimal charging of a Li-ion cell: A hybrid Model Predictive Control approach. , 2016, , .		4

#	ARTICLE	IF	CITATIONS
19	Randomized Summer Camp Crossover Trial in 5- to 9-Year-Old Children: Outpatient Wearable Artificial Pancreas Is Feasible and Safe. <i>Diabetes Care</i> , 2016, 39, 1180-1185.	8.6	79
20	Day-and-Night Closed-Loop Glucose Control in Patients With Type 1 Diabetes Under Free-Living Conditions: Results of a Single-Arm 1-Month Experience Compared With a Previously Reported Feasibility Study of Evening and Night at Home. <i>Diabetes Care</i> , 2016, 39, 1151-1160.	8.6	98
21	LIONSIMBA: A Matlab Framework Based on a Finite Volume Model Suitable for Li-Ion Battery Design, Simulation, and Control. <i>Journal of the Electrochemical Society</i> , 2016, 163, A1192-A1205.	2.9	184
22	Evaluating the Experience of Children With Type 1 Diabetes and Their Parents Taking Part in an Artificial Pancreas Clinical Trial Over Multiple Days in a Diabetes Camp Setting. <i>Diabetes Care</i> , 2016, 39, 2158-2164.	8.6	30
23	Hierarchical Model Predictive/Sliding Mode Control of Nonlinear Constrained Uncertain Systems. <i>IFAC-PapersOnLine</i> , 2015, 48, 102-109.	0.9	22
24	Designing an artificial pancreas architecture: the AP@home experience. <i>Medical and Biological Engineering and Computing</i> , 2015, 53, 1271-1283.	2.8	15
25	Closing the Loop. <i>Diabetes Technology and Therapeutics</i> , 2015, 17, S-27-S-38.	4.4	0
26	An approach to output-feedback MPC of stochastic linear discrete-time systems. <i>Automatica</i> , 2015, 55, 140-149.	5.0	75
27	2 month evening and night closed-loop glucose control in patients with type 1 diabetes under free-living conditions: a randomised crossover trial. <i>Lancet Diabetes and Endocrinology</i> , 2015, 3, 939-947.	11.4	189
28	Multicenter outpatient dinner/overnight reduction of hypoglycemia and increased time of glucose in target with a wearable artificial pancreas using modular model predictive control in adults with type 1 diabetes. <i>Diabetes, Obesity and Metabolism</i> , 2015, 17, 468-476.	4.4	84
29	A mixed integer SDP approach for the optimal placement of energy storage devices in power grids with renewable penetration. , 2015, , .		10
30	Real-time model predictive control for the optimal charging of a lithium-ion battery. , 2015, , .		48
31	Improved postprandial glucose control with a customized Model Predictive Controller. , 2015, , .		19
32	Multirate sliding mode disturbance compensation for model predictive control. <i>International Journal of Robust and Nonlinear Control</i> , 2015, 25, 2984-3003.	3.7	25
33	Multicenter Closed-Loop Insulin Delivery Study Points to Challenges for Keeping Blood Glucose in a Safe Range by a Control Algorithm in Adults and Adolescents with Type 1 Diabetes from Various Sites. <i>Diabetes Technology and Therapeutics</i> , 2014, 16, 613-622.	4.4	43
34	Monitoring Artificial Pancreas Trials Through Agent-based Technologies. <i>Journal of Diabetes Science and Technology</i> , 2014, 8, 216-224.	2.2	23
35	First Use of Model Predictive Control in Outpatient Wearable Artificial Pancreas. <i>Diabetes Care</i> , 2014, 37, 1212-1215.	8.6	95
36	Model-based event-triggered robust MPC/ISM. , 2014, , .		32

#	ARTICLE	IF	CITATIONS
37	Safety of Outpatient Closed-Loop Control: First Randomized Crossover Trials of a Wearable Artificial Pancreas. Diabetes Care, 2014, 37, 1789-1796.	8.6	168
38	Multicenter Closed-Loop/Hybrid Meal Bolus Insulin Delivery with Type 1 Diabetes. Diabetes Technology and Therapeutics, 2014, 16, 623-632.	4.4	38
39	A Constrained Model Predictive Controller for an Artificial Pancreas. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 10144-10149.	0.4	7
40	From In- to Out-patient Artificial Pancreas Studies: Results And New Developments. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 255-262.	0.4	0
41	Automatic adaptation of basal therapy for Type 1 diabetic patients: a Run-to-Run approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2070-2075.	0.4	10
42	Day and Night Closed-Loop Control in Adults With Type 1 Diabetes. Diabetes Care, 2013, 36, 3882-3887.	8.6	95
43	Closing the Loop. Diabetes Technology and Therapeutics, 2013, 15, S-29-S-39.	4.4	4
44	Embedded implementation of modular closed-loop control of diabetes and in silico validation. , 2013, , .		0
45	A hybrid stochastic-deterministic input design method for active fault diagnosis. , 2013, , .		23
46	A robust MPC/ISM hierarchical multi-loop control scheme for robot manipulators. , 2013, , .		16
47	A probabilistic approach to Model Predictive Control. , 2013, , .		62
48	Artificial Pancreas: Model Predictive Control Design from Clinical Experience. Journal of Diabetes Science and Technology, 2013, 7, 1470-1483.	2.2	94
49	Model Predictive Control of Type 1 Diabetes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 99-106.	0.4	2
50	Modular Closed-Loop Control of Diabetes. IEEE Transactions on Biomedical Engineering, 2012, 59, 2986-2999.	4.2	150
51	Fully Integrated Artificial Pancreas in Type 1 Diabetes. Diabetes, 2012, 61, 2230-2237.	0.6	343
52	MPC based Artificial Pancreas: Strategies for individualization and meal compensation. Annual Reviews in Control, 2012, 36, 118-128.	7.9	101
53	Robust Model Predictive Control With Integral Sliding Mode in Continuous-Time Sampled-Data Nonlinear Systems. IEEE Transactions on Automatic Control, 2011, 56, 556-570.	5.7	156
54	Model Predictive Control of Type 1 Diabetes added to Conventional Therapy. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7108-7113.	0.4	2

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55	Modeling and Control of Diabetes: Towards the Artificial Pancreas. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7092-7101.	0.4	24
56	Multivariable predictive control for vibrating structures: An application. Control Engineering Practice, 2011, 19, 1087-1098.	5.5	31
57	Bringing the Artificial Pancreas Home: Telemedicine Aspects. Journal of Diabetes Science and Technology, 2011, 5, 1381-1386.	2.2	20
58	A Nonlinear Model Predictive Control Scheme with Multirate Integral Sliding Mode *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 232-237.	0.4	2
59	Multinational Study of Subcutaneous Model-Predictive Closed-Loop Control in Type 1 Diabetes Mellitus: Summary of the Results. Journal of Diabetes Science and Technology, 2010, 4, 1374-1381.	2.2	188
60	An Overview of Nonlinear Model Predictive Control. Lecture Notes in Control and Information Sciences, 2010, , 107-117.	1.0	7
61	Stochastic Model Predictive Control of constrained linear systems with additive uncertainty. , 2009, , .		12
62	Control to Range for Diabetes: Functionality and Modular Architecture. Journal of Diabetes Science and Technology, 2009, 3, 1058-1065.	2.2	72
63	<i>In Silico</i> Preclinical Trials: Methodology and Engineering Guide to Closed-Loop Control in Type 1 Diabetes Mellitus. Journal of Diabetes Science and Technology, 2009, 3, 269-282.	2.2	70
64	Run-to-Run Tuning of Model Predictive Control for Type 1 Diabetes Subjects: In Silico Trial. Journal of Diabetes Science and Technology, 2009, 3, 1091-1098.	2.2	95
65	Model predictive control of glucose concentration in type I diabetic patients: An in silico trial. Biomedical Signal Processing and Control, 2009, 4, 338-346.	5.7	162
66	Robust Model Predictive Control of Nonlinear Systems With Bounded and State-Dependent Uncertainties. IEEE Transactions on Automatic Control, 2009, 54, 1681-1687.	5.7	85
67	Nonlinear Model Predictive Control. Lecture Notes in Control and Information Sciences, 2009, , .	1.0	110
68	Min-max Model Predictive Control of Nonlinear Systems: A Unifying Overview on Stability. European Journal of Control, 2009, 15, 5-21.	2.6	163
69	Diabetes: Models, Signals, and Control. IEEE Reviews in Biomedical Engineering, 2009, 2, 54-96.	18.0	431
70	Closed-Loop Artificial Pancreas Using Subcutaneous Glucose Sensing and Insulin Delivery and a Model Predictive Control Algorithm: Preliminary Studies in Padova and Montpellier. Journal of Diabetes Science and Technology, 2009, 3, 1014-1021.	2.2	127
71	Switched model predictive control for performance enhancement. International Journal of Control, 2008, 81, 1859-1869.	1.9	52
72	Cooperative Constrained Control of Distributed Agents With Nonlinear Dynamics and Delayed Information Exchange: A Stabilizing Receding-Horizon Approach. IEEE Transactions on Automatic Control, 2008, 53, 324-338.	5.7	139

#	ARTICLE	IF	CITATIONS
73	Robust receding - horizon control of nonlinear systems with state dependent uncertainties: An input-to-state stability approach. , 2008, , .		10
74	Evaluating the Efficacy of Closed-Loop Glucose Regulation via Control-Variability Grid Analysis. Journal of Diabetes Science and Technology, 2008, 2, 630-635.	2.2	185
75	Robustness and Robust Design of MPC for Nonlinear Discrete-Time Systems. , 2007, , 239-254.		82
76	Model Predictive Control of Type 1 Diabetes: An <i>in Silico</i> Trial. Journal of Diabetes Science and Technology, 2007, 1, 804-812.	2.2	265
77	On optimality of nonlinear model predictive control. Systems and Control Letters, 2007, 56, 58-61.	2.3	15
78	Tracking of non-square nonlinear continuous time systems with piecewise constant model predictive control. Journal of Process Control, 2007, 17, 631-640.	3.3	23
79	Decentralized MPC of nonlinear systems: An input-to-state stability approach. International Journal of Robust and Nonlinear Control, 2007, 17, 1651-1667.	3.7	100
80	Switch Detection in Genetic Regulatory Networks. , 2007, , 754-757.		5
81	Sampled-Data Model Predictive Control for Nonlinear Time-Varying Systems: Stability and Robustness. , 2007, , 115-129.		14
82	Optimization of the Start-up Procedure of a Combined Cycle Power Plant. , 2006, , .		12
83	Regional Input-to-State Stability for Nonlinear Model Predictive Control. IEEE Transactions on Automatic Control, 2006, 51, 1548-1553.	5.7	133
84	Stabilizing decentralized model predictive control of nonlinear systems. Automatica, 2006, 42, 1231-1236.	5.0	149
85	Input-to-State Stability for Nonlinear Model Predictive Control. , 2006, , .		7
86	Control design for nonlinear systems: trading robustness and performance with the model predictive control approach. IET Control Theory and Applications, 2005, 152, 333-339.	1.7	14
87	On the solution of the tracking problem for non-linear systems with MPC. International Journal of Systems Science, 2005, 36, 477-484.	5.5	28
88	Predictive control of thermal Power Plants. International Journal of Robust and Nonlinear Control, 2004, 14, 415-433.	3.7	24
89	On the stabilization of nonlinear discrete-time systems with output feedback. International Journal of Robust and Nonlinear Control, 2004, 14, 1379-1391.	3.7	16
90	Stabilizing model predictive control of nonlinear continuous time systems. Annual Reviews in Control, 2004, 28, 1-11.	7.9	33

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91	A multi-model structure for model predictive control. Annual Reviews in Control, 2004, 28, 47-52.	7.9	31
92	Efficient NMPC of unstable periodic systems using approximate infinite horizon closed loop costing. Annual Reviews in Control, 2004, 28, 37-45.	7.9	34
93	A Probabilistic Approach to Fault Diagnosis of Industrial Systems. IEEE Transactions on Control Systems Technology, 2004, 12, 950-955.	5.2	16
94	Model Predictive Control of Continuous-Time Nonlinear Systems With Piecewise Constant Control. IEEE Transactions on Automatic Control, 2004, 49, 900-906.	5.7	114
95	Robust model predictive control for nonlinear discrete-time systems. International Journal of Robust and Nonlinear Control, 2003, 13, 229-246.	3.7	189
96	Min-max model predictive control of nonlinear systems using discontinuous feedbacks. IEEE Transactions on Automatic Control, 2003, 48, 1750-1755.	5.7	72
97	Design methodology for diagnostic strategies for industrial systems. International Journal of Systems Science, 2002, 33, 505-512.	5.5	2
98	On robust tracking with non-linear model predictive control. International Journal of Control, 2002, 75, 399-407.	1.9	28
99	Robust stabilization of a nonlinear cement mill model. IEEE Transactions on Automatic Control, 2001, 46, 618-623.	5.7	22
100	Output feedback and tracking of nonlinear systems with model predictive control. Automatica, 2001, 37, 1601-1607.	5.0	93
101	A receding-horizon approach to the nonlinear H^∞ control problem. Automatica, 2001, 37, 429-435.	5.0	82
102	A stabilizing model-based predictive control algorithm for nonlinear systems. Automatica, 2001, 37, 1351-1362.	5.0	308
103	A fault detection and isolation method for complex industrial systems. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2000, 30, 860-865.	2.9	8
104	Robustness of receding horizon control for nonlinear discrete-time systems. Lecture Notes in Control and Information Sciences, 1999, , 408-421.	1.0	6
105	Neural Network Implementation of Nonlinear Receding-Horizon Control. Neural Computing and Applications, 1999, 8, 86-92.	5.6	26
106	Multivariable nonlinear predictive control of cement mills. IEEE Transactions on Control Systems Technology, 1999, 7, 502-508.	5.2	44
107	Stabilizing receding-horizon control of nonlinear time-varying systems. IEEE Transactions on Automatic Control, 1998, 43, 1030-1036.	5.7	194
108	Stabilizing Predictive Control of Nonlinear ARX Models. Automatica, 1997, 33, 1691-1697.	5.0	57

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109	Stability margins of nonlinear receding-horizon control via inverse optimality. Systems and Control Letters, 1997, 32, 241-245.	2.3	123
110	On the robustness of receding-horizon control with terminal constraints. IEEE Transactions on Automatic Control, 1996, 41, 451-453.	5.7	71
111	Robust predictive control of systems with uncertain impulse response. Automatica, 1996, 32, 1475-1479.	5.0	19
112	Multivariable predictive control of cement mills. , 0, , .		2
113	Kalman Filter Estimation of the Coal Flow in Power Plants. , 0, , .		3