

# Jan M Maciejowski

## List of Publications by Year in descending order

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117  
papers

2,535  
citations

279798

23  
h-index

243625

44  
g-index

119  
all docs

119  
docs citations

119  
times ranked

1730  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimization over state feedback policies for robust control with constraints. Automatica, 2006, 42, 523-533.	5.0	445
2	Feedback min-max model predictive control using a single linear program: robust stability and the explicit solution. International Journal of Robust and Nonlinear Control, 2004, 14, 395-413.	3.7	183
3	Monte Carlo Optimization for Conflict Resolution in Air Traffic Control. IEEE Transactions on Intelligent Transportation Systems, 2006, 7, 470-482.	8.0	128
4	MPC fault-tolerant flight control case study: flight 1862. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 119-124.	0.4	119
5	Invariant sets for constrained nonlinear discrete-time systems with application to feasibility in model predictive control. , 0, , .		101
6	A FPGA implementation of model predictive control. , 2006, , .		95
7	Model predictive control system design and implementation for spacecraft rendezvous. Control Engineering Practice, 2012, 20, 695-713.	5.5	94
8	Collective behavior coordination with predictive mechanisms. IEEE Circuits and Systems Magazine, 2008, 8, 67-85.	2.3	74
9	Predictive Control Using an FPGA With Application to Aircraft Control. IEEE Transactions on Control Systems Technology, 2014, 22, 1006-1017.	5.2	72
10	Guaranteed stability with subspace methods. Systems and Control Letters, 1995, 26, 153-156.	2.3	69
11	Realization of stable models with subspace methods. Automatica, 1996, 32, 1587-1595.	5.0	53
12	Lexicographic perturbation for multiparametric linear programming with applications to control. Automatica, 2007, 43, 1808-1816.	5.0	52
13	Designing model predictive controllers with prioritised constraints and objectives. , 0, , .		45
14	Learning-based Nonlinear Model Predictive Control * *The authors would like to acknowledge to the Spanish MINECO Grant PRX15-00300 and projects DPI2013-48243-C2-2-R and DPI2016-76493-C3-1-R as well as to the Engineering and Physical Research Council, grant no. EP/J012300/1 for funding this work.. IFAC-PapersOnLine, 2017, 50, 7769-7776.	0.9	40
15	Fault Tolerant Flight Control - A Survey. Lecture Notes in Control and Information Sciences, 2010, , 47-89.	1.0	40
16	Robust variable horizon MPC with move blocking. Systems and Control Letters, 2012, 61, 587-594.	2.3	38
17	Terminal spacecraft rendezvous and capture with LASSO model predictive control. International Journal of Control, 2013, 86, 2104-2113.	1.9	35
18	System identification using balanced parametrizations. IEEE Transactions on Automatic Control, 1997, 42, 956-974.	5.7	34

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19	Modelling and predictive control: Enabling technologies for reconfiguration. Annual Reviews in Control, 1999, 23, 13-23.	7.9	32
20	Multiplexed model predictive control. Automatica, 2012, 48, 396-401.	5.0	32
21	Model discrimination using an algorithmic information criterion. Automatica, 1979, 15, 579-593.	5.0	30
22	CLADP: The Cambridge linear analysis and design programs. Control Systems Magazine, 1982, 2, 3-8.	0.0	30
23	MULTIPLEXED MODEL PREDICTIVE CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 574-579.	0.4	28
24	Constructive algebra methods for the L <sub>2</sub> -problem for stable linear systems. Automatica, 1996, 32, 1645-1657.	5.0	26
25	Multi-objective prioritisation and reconfiguration for the control of constrained hybrid systems. , 2000, , .		26
26	Dynamic modelling of the brushless doubly fed machine. IET Electric Power Applications, 2013, 7, 544-556.	1.8	25
27	Optimal Beer Fermentation. Journal of the Institute of Brewing, 2007, 113, 325-333.	2.3	24
28	Stochastic Optimization on Continuous Domains With Finite-Time Guarantees by Markov Chain Monte Carlo Methods. IEEE Transactions on Automatic Control, 2010, 55, 2858-2863.	5.7	21
29	A Combined Cycle Gas Turbine Model for Heat and Power Dispatch Subject to Grid Constraints. IEEE Transactions on Sustainable Energy, 2020, 11, 448-456.	8.8	20
30	Field programmable gate array based predictive control system for spacecraft rendezvous in elliptical orbits. Optimal Control Applications and Methods, 2015, 36, 585-607.	2.1	19
31	Modelling and control of nonlinear systems using Gaussian processes with partial model information. , 2012, , .		18
32	Sequential modelling of thermal energy: New potential for energy optimisation in papermaking. Applied Energy, 2012, 89, 97-105.	10.1	18
33	Self-triggered MPC with performance guarantee using relaxed dynamic programming. Automatica, 2020, 114, 108803.	5.0	18
34	Decoupled control of a macroeconomic model using frequency-domain methods. Journal of Economic Dynamics and Control, 1984, 7, 55-77.	1.6	17
35	Robustly stable feedback min-max model predictive control. , 0, , .		17
36	Designing Output-Feedback Predictive Controllers by Reverse-Engineering Existing LTI Controllers. IEEE Transactions on Automatic Control, 2013, 58, 2934-2939.	5.7	17

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37	Fault tolerant control using Gaussian processes and model predictive control. , 2013, , .		17
38	Lazily Adapted Constant Kinky Inference for nonparametric regression and model-reference adaptive control. Automatica, 2020, 122, 109216.	5.0	17
39	A trust-region based sequential linear programming approach for AC optimal power flow problems. Electric Power Systems Research, 2018, 165, 134-143.	3.6	16
40	Robustness of multivariable smith predictors. Journal of Process Control, 1994, 4, 29-32.	3.3	14
41	Data-Based Robust Multiobjective Optimization of Interconnected Processes: Energy Efficiency Case Study in Papermaking. IEEE Transactions on Neural Networks, 2011, 22, 2324-2338.	4.2	14
42	Implications of dissipativity on stability of economic model predictive controlâ€”The indefinite linear quadratic case. Systems and Control Letters, 2017, 100, 43-50.	2.3	14
43	Multivariable toolbox for use with MATLAB. Control Systems Magazine, 1989, 9, 59-65.	0.0	13
44	Efficient point location via subdivision walking with application to explicit MPC. , 2007, , .		13
45	Robust feasibility in model predictive control: necessary and sufficient conditions. , 0, , .		13
46	Optimal switching control of burner setting for a compact marine boiler design. Control Engineering Practice, 2010, 18, 665-675.	5.5	12
47	A clusterized energy management with linearized losses in the presence of multiple types of distributed generation. International Journal of Electrical Power and Energy Systems, 2019, 113, 9-22.	5.5	12
48	Model predictive control via quadratic dissipativity constraint. , 2014, , .		11
49	Robust multiplexed model predictive control. , 2007, , .		10
50	Reconfigurable predictive control for redundantly actuated systems with parameterised input constraints. Systems and Control Letters, 2014, 66, 8-15.	2.3	10
51	Properties of a new parameterization for the control of constrained systems with disturbances. , 2004, , .		10
52	Reconfigurable Flight Control During Actuator Failures Using Predictive Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 7979-7984.	0.4	9
53	Optimal constraint tightening policies for robust variable horizon model predictive control. , 2012, , .		9
54	Stabilising terminal cost and terminal controller for $\hat{a}$ , “&lt;inf&gt;asso&lt;/inf&gt;-MPC: enhanced optimality and region of attraction. , 2013, , .		8

#	ARTICLE	IF	CITATIONS
55	A longitudinal flight control law to accommodate sensor loss in the RECONFIGURE benchmark. Annual Reviews in Control, 2016, 42, 212-223.	7.9	8
56	A Database Approach to Computer-Aided Control System Design. , 1983, , .		7
57	Subspace identification â€œ a Markov parameter approach. International Journal of Control, 2005, 78, 1412-1436.	1.9	7
58	Reinforcement learning with reference tracking control in continuous state spaces. , 2011, , .		7
59	Mapping Adaptive Particle Filters to Heterogeneous Reconfigurable Systems. ACM Transactions on Reconfigurable Technology and Systems, 2015, 7, 1-17.	2.5	7
60	A System Identification in the Presence of Nonlinear Sensors. Transactions of the Society of Instrument and Control Engineers, 2005, 41, 142-148.	0.2	7
61	Automatic Tuning for Model Based Predictive Control During Reconfiguration. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 237-242.	0.4	6
62	Verifying stability of approximate explicit MPC. , 2009, , .		6
63	A longitudinal flight control law based on robust MPC and H 2 methods to accommodate sensor loss in the RECONFIGURE benchmark â€¦... â€¦...The research leading to these results has received funding from the European Union Seventh Framework Programme FP7/2007-2013 under grant agreement number 314 544, project â€œRECONFIGUREâ€œ. IFAC-PapersOnLine, 2015, 48, 1000-1005.	0.9	6
64	Banded Null Basis and ADMM for Embedded MPC * *This research is supported by the National Research Foundation, Prime Ministers Office, Singapore under its CREATE programme. IFAC-PapersOnLine, 2017, 50, 13170-13175.	0.9	6
65	Recursive maximum likelihood estimation with $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1769" altimg="si5.svg" \rangle \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -distribution noise model. Automatica, 2021, 132, 109789.	5.0	6
66	Stability of model predictive control using Markov Chain Monte Carlo optimisation. , 2009, , .		5
67	Model predictive control of nonlinear input-affine systems with feasibility and stability constraints. , 2014, , .		5
68	A general dissipativity constraint for feedback system design, with emphasis on MPC. International Journal of Robust and Nonlinear Control, 2019, 29, 4775-4796.	3.7	5
69	Reverse Search for Parametric Linear Programming. , 2006, , .		4
70	MPC design for fault-tolerant flight control purposes based upon an existing output feedback controller. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 253-258.	0.4	4
71	Robust Multiplexed Model Predictive Control for agent-based conflict resolution. , 2010, , .		4
72	Adaptive Sequential Monte Carlo approach for real-time applications. , 2012, , .		4

#	ARTICLE	IF	CITATIONS
73	Soft-constrained $\infty$ -MPC for robust LTI tracking: Enlarged feasible region and an ISS gain estimate. , 2013, , .		4
74	Application of quadratically-constrained model predictive control in power systems. , 2014, , .		4
75	Implications of discretization on dissipativity and economic model predictive control. Journal of Process Control, 2017, 49, 1-8.	3.3	4
76	Nonlinear Set Membership Regression with Adaptive Hyper-Parameter Estimation for Online Learning and Control. , 2018, , .		4
77	Covariance Analysis of LAV Robust Dynamic State Estimation in Power Systems. IEEE Systems Journal, 2020, 14, 2801-2812.	4.6	4
78	Robust finite horizon MPC without terminal constraints. , 0, , .		3
79	Decoupling method for vector control of the brushless doubly-fed machine. , 2013, , .		3
80	Closed-loop development for dissipativity constraint. , 2014, , .		3
81	Model predictive control with prioritised actuators. , 2015, , .		3
82	Distributed Moving Horizon Estimation for power systems. , 2015, , .		3
83	Nonlinear model predictive control based on Bernstein global optimization with application to a nonlinear CSTR. , 2016, , .		3
84	Model predictive control of a CSTR: A comparative study among linear and nonlinear model approaches. , 2017, , .		3
85	A Generic Method to Model CO <sub>2</sub> Emission Performances of Combined-Cycle Power Plants for Environmental Unit Commitment. Energy Technology, 2018, 6, 72-83.	3.8	3
86	Right-half plane zeros are not necessary for inverse response. , 2018, , .		3
87	Two tutorial examples of multivariable control system design. Transactions of the Institute of Measurement and Control, 1985, 7, 97-106.	1.7	2
88	Computational chains for CACSD using Matlab containers. , 0, , .		2
89	State Feedback Policies for Robust Receding Horizon Control: Uniqueness, Continuity, and Stability. , 0, , .		2
90	Discussion on: "Min-max Model Predictive Control of Nonlinear Systems: A Unifying Overview on Stability" European Journal of Control, 2009, 15, 22-25.	2.6	2

#	ARTICLE	IF	CITATIONS
91	Parallelisation of Sequential Monte Carlo for real-time control in air traffic management. , 2013, , .		2
92	SMCGen: Generating Reconfigurable Design for Sequential Monte Carlo Applications. , 2014, , .		2
93	Economic Equivalence of Economic Model Predictive Control and Hierarchical Control Schemes. Industrial & Engineering Chemistry Research, 2016, 55, 10978-10989.	3.7	2
94	The Cambridge Linear Analysis and Design Programs - CLADP. , 1982, , .		2
95	Asymptotic Recovery for Discrete-Time Systems. , 1983, , .		2
96	Unbiased bilinear subspace system identification methods. , 2001, , .		1
97	Discussion on: "Reconfigurable Fault-tolerant Control : A Tutorial Introduction" European Journal of Control, 2008, 14, 387-389.	2.6	1
98	Surface excavation with model predictive control. , 2010, , .		1
99	Output disturbance rejection using parallel model predictive control. , 2013, , .		1
100	Real-time optimisation-based planning and scheduling of vehicle trajectories. , 2014, , .		1
101	Multiplexed model predictive control of interconnected systems. , 2015, , .		1
102	A generic method to model carbon emission of combined cycle for environmental power dispatch. , 2017, , .		1
103	Fastened Unit Commitment with Loss Linearization for Distributed Generation Planning Studies. , 2018, , .		1
104	Robust Self-triggered MPC for Constrained Linear Systems with Additive Disturbance. , 2019, , .		1
105	Balanced realization for state-space identification and optimal output regulation. AIChE Journal, 1995, 41, 1217-1228.	3.6	0
106	Tuning robust model predictive controllers using LQG/LTR. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 1231-1236.	0.4	0
107	Discussion on: "Variable Horizon Robust Predictive Control via Adjustable Controllability Sets"™ by M. N. Demenkov and N. B. Filimonov. European Journal of Control, 2001, 7, 605-608.	2.6	0
108	Model Predictive Control: A New Paradigm for Automatic Control 2002 Presidential Address. Measurement and Control, 2003, 36, 44-47.	1.8	0

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109	A simple rotor current observer with an arbitrary rate of convergence for the brushless doubly-fed (induction) machine (BDFM). , 0, , .		0
110	The changing face and role of CACSD. , 2006, , .		0
111	Simulation and analysis of powertrain hybridisation for construction equipment. International Journal of Electric and Hybrid Vehicles, 2010, 2, 240.	0.3	0
112	Editorial: Implementation of feedback controllers. IET Control Theory and Applications, 2012, 6, 1001-1002.	2.1	0
113	Corrigendum to "Robust variable horizon MPC with move blocking" [Systems Control Lett. 61 (4) (2012) 587-594]. Systems and Control Letters, 2013, 62, 451-452.	2.3	0
114	Incorporating control performance tuning into economic model predictive control. , 2015, , .		0
115	Improved Bernstein Optimization Based Nonlinear Model Predictive Control Scheme for Power Systems. IFAC-PapersOnLine, 2017, 50, 537-544.	0.9	0
116	Hierarchical EMS for aggregated BESSs in energy and performance-based regulation markets. , 2017, , .		0
117	A Generic Benchmark for Power Market Analysis From Generation Mix To End-Users. , 2018, , .		0