

Colin N Jones

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

177 papers	3,964 citations	29 h-index	58 g-index
190 ext. papers	4,901 ext. citations	4.1 avg, IF	5.79 L-index

#	Paper	IF	Citations
177	Robust Resource-Aware Self-Triggered Model Predictive Control 2022 , 6, 1724-1729		0
176	Distributed model predictive control of buildings and energy hubs. <i>Energy and Buildings</i> , 2022 , 259, 111806		1
175	On the Optimality and Convergence Properties of the Iterative Learning Model Predictive Controller. <i>IEEE Transactions on Automatic Control</i> , 2022 , 1-1	5.9	0
174	Distributionally Robust Joint Chance-Constrained Dispatch for Integrated Transmission-Distribution Systems via Distributed Optimization. <i>IEEE Transactions on Smart Grid</i> , 2022 , 1-1	10.7	1
173	Resource-Aware Stochastic Self-Triggered Model Predictive Control 2022 , 6, 1262-1267		1
172	Distributed Optimal Power Flow for VSC-MTDC Meshed AC/DC Grids Using ALADIN. <i>IEEE Transactions on Power Systems</i> , 2022 , 1-1	7	1
171	Joint Energy Management for Distributed Energy Harvesting Systems 2021 ,		1
170	Evaluation of advanced control strategies of electric thermal storage systems in residential building stock. <i>Utilities Policy</i> , 2021 , 69, 101178	3.3	0
169	Reference tracking stochastic model predictive control over unreliable channels and bounded control actions. <i>Automatica</i> , 2021 , 127, 109512	5.7	2
168	Guest Editorial Model Predictive Control in Energy Conversion Systems. <i>IEEE Transactions on Energy Conversion</i> , 2021 , 36, 1311-1312	5.4	
167	A Distributed Luenberger Observer for Linear State Feedback Systems With Quantized and Rate-Limited Communications. <i>IEEE Transactions on Automatic Control</i> , 2021 , 66, 3922-3937	5.9	0
166	Embedded PWM Predictive Control of DC-DC Power Converters Via Piecewise-Affine Neural Networks. <i>IEEE Open Journal of the Industrial Electronics Society</i> , 2021 , 2, 199-206	3.6	0
165	A Demand Response-Based Solution to Overloading in Underdeveloped Distribution Networks. <i>IEEE Transactions on Smart Grid</i> , 2021 , 12, 4059-4067	10.7	2
164	Towards global optimal control via Koopman lifts. <i>Automatica</i> , 2021 , 132, 109610	5.7	1
163	Deterministic error bounds for kernel-based learning techniques under bounded noise. <i>Automatica</i> , 2021 , 134, 109896	5.7	0
162	A Demand Response Framework to Overcome Network Overloading in Power Distribution Networks. <i>IFAC-PapersOnLine</i> , 2020 , 53, 13339-13344	0.7	
161	A Resource-Aware Approach to Self-Triggered Model Predictive Control. <i>IFAC-PapersOnLine</i> , 2020 , 53, 2733-2738	0.7	2

160 NSM Converges to a k-NN Regressor Under Loose Lipschitz Estimates **2020**, 4, 880-885

159 On Gaussian Process Based Koopman Operators. *IFAC-PapersOnLine*, **2020**, 53, 449-455

0.7 2

158 Distributed Multi-Building Coordination for Demand Response. *IFAC-PapersOnLine*, **2020**, 53, 17113-17118

157 Learning Non-Parametric Models with Guarantees: A Smooth Lipschitz Regression Approach. *IFAC-PapersOnLine*, **2020**, 53, 965-970

0.7 0

156 Resource-Aware Asynchronous Multi-Agent Coordination via Self-Triggered MPC **2020**,

1

155 A Neural Network Architecture to Learn Explicit MPC Controllers from Data. *IFAC-PapersOnLine*, **2020**, 53, 11362-11367

0.7 7

154 PolyMPC: An efficient and extensible tool for real-time nonlinear model predictive tracking and path following for fast mechatronic systems. *Optimal Control Applications and Methods*, **2020**, 41, 709-727

3

153 Regularized economic model predictive control with barrier functions. *Optimal Control Applications and Methods*, **2020**, 41, 3-24

1.7 1

152 Data-driven methods for building control: A review and promising future directions. *Control Engineering Practice*, **2020**, 95, 104211

3.9 28

151 A nonlinear model predictive control scheme for sensor fault tolerance in observation processes. *International Journal of Robust and Nonlinear Control*, **2020**, 30, 5657-5677

3.6 0

150 Ancillary Services Provision Utilizing a Network of Fast-Charging Stations for Electrical Buses. *IEEE Transactions on Smart Grid*, **2020**, 11, 665-672

10.7 13

149 Experimental Verification of Sum-Of-Squares-Based Controller Tuning Technique with Extension to Parallel Multimodel Uncertainty Processing **2019**,

1

148 Distributed state estimation for discrete-time linear time invariant systems: A survey. *Annual Reviews in Control*, **2019**, 48, 36-56

10.3 12

147 An Inertial Parallel and Asynchronous Forward Backward Iteration for Distributed Convex Optimization. *Journal of Optimization Theory and Applications*, **2019**, 182, 1088-1119

1.6 4

146 SVR-AMA: An Asynchronous Alternating Minimization Algorithm With Variance Reduction for Model Predictive Control Applications. *IEEE Transactions on Automatic Control*, **2019**, 64, 1800-1815

5.9

145 Cooperative path-following control with logic-based communications: theory and practice **2019**, 187-224

4

144 Learning Feature Maps of the Koopman Operator: A Subspace Viewpoint **2019**,

2

143 Exergy-based model predictive control for design and control of a seasonal thermal energy storage system. *Journal of Physics: Conference Series*, **2019**, 1343, 012066

0.3 3

142	Scalable MPC Design. <i>Control Engineering</i> , 2019 , 259-283	1	
141	Real-Time Implementation of Explicit Model Predictive Control. <i>Control Engineering</i> , 2019 , 387-412	1	1
140	Hierarchical control of building HVAC system for ancillary services provision. <i>Energy and Buildings</i> , 2018 , 169, 216-227	7	22
139	Experimental Implementation of Frequency Regulation Services Using Commercial Buildings. <i>IEEE Transactions on Smart Grid</i> , 2018 , 9, 1657-1666	10.7	22
138	Economic Advantages of Office Buildings Providing Ancillary Services With Intraday Participation. <i>IEEE Transactions on Smart Grid</i> , 2018 , 9, 3443-3452	10.7	12
137	Real-Time optimization of Uncertain Process Systems via Modifier Adaptation and Gaussian Processes 2018 ,		11
136	An ADMM-Based Coordination and Control Strategy for PV and Storage to Dispatch Stochastic Prosumers: Theory and Experimental Validation 2018 ,		3
135	Multi-time scale coordination of complementary resources for the provision of ancillary services. <i>Applied Energy</i> , 2018 , 229, 1164-1180	10.7	7
134	Enhancing the dispatchability of distribution networks through utility-scale batteries and flexible demand. <i>Energy and Buildings</i> , 2018 , 172, 125-138	7	8
133	Complexity Certification of the Fast Alternating Minimization Algorithm for Linear MPC. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 888-893	5.9	11
132	Convergence rates of moment-sum-of-squares hierarchies for optimal control problems. <i>Systems and Control Letters</i> , 2017 , 100, 1-5	2.4	9
131	Stability and performance verification of optimization-based controllers. <i>Automatica</i> , 2017 , 78, 34-45	5.7	10
130	Robust Tracking Commitment. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 4451-4466	5.9	12
129	An Alternating Trust Region Algorithm for Distributed Linearly Constrained Nonlinear Programs, Application to the Optimal Power Flow Problem. <i>Journal of Optimization Theory and Applications</i> , 2017 , 173, 844-877	1.6	7
128	An Input-to-State-Stability Approach to Economic Optimization in Model Predictive Control. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 6081-6093	5.9	17
127	On turnpike and dissipativity properties of continuous-time optimal control problems. <i>Automatica</i> , 2017 , 81, 297-304	5.7	61
126	Experimental demonstration of buildings providing frequency regulation services in the Swiss market. <i>Energy and Buildings</i> , 2017 , 144, 229-240	7	12
125	Incipient Actuator Fault Handling in Nonlinear Model Predictive Control. <i>IFAC-PapersOnLine</i> , 2017 , 50, 15922-15927	0.7	1

124	Dispatching active distribution networks through electrochemical storage systems and demand side management 2017 ,		2
123	VirtualArena: An object-oriented MATLAB toolkit for control system design and simulation 2017 ,		8
122	. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 1752-1767	5.9	7
121	Quantization Design for Distributed Optimization. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 2107-2120	5.9	26
120	Constrained bundle methods with inexact minimization applied to the energy regulation provision problem. <i>IFAC-PapersOnLine</i> , 2017 , 50, 12471-12476	0.7	1
119	Embedded Optimization Methods for Industrial Automatic Control. <i>IFAC-PapersOnLine</i> , 2017 , 50, 13194-13209	0.7	16
118	Model Predictive Path-Following Control for Airborne Wind Energy Systems * *This work is funded by the Sinergia project Autonomous Airborne Wind Energy (A2WE) of the Swiss National Science Foundation (SNSF).. <i>IFAC-PapersOnLine</i> , 2017 , 50, 13270-13275	0.7	1
117	Software and Hardware Code Generation for Predictive Control Using Splitting Methods * *This work has received funding from the People Programme (Marie Curie Actions) of the European Union Seventh Framework Programme (FP7/2007-2013) under REA grant agreement no 607957 (TEMPO).. <i>IFAC-PapersOnLine</i> , 2017 , 50, 14386-14391	0.7	4
116	Data-driven demand response modeling and control of buildings with Gaussian Processes 2017 ,		10
115	A design method for distributed luenberger observers 2017 ,		5
114	On coordinated primal-dual interior-point methods for multi-agent optimization 2017 ,		2
113	Control of nonlinear systems with explicit-MPC-like controllers 2017 ,		4
112	Interior Point Decomposition for Multi-Agent Optimization. <i>IFAC-PapersOnLine</i> , 2017 , 50, 233-238	0.7	3
111	A Parametric Nonconvex Decomposition Algorithm for Real-Time and Distributed NMPC. <i>IEEE Transactions on Automatic Control</i> , 2016 , 61, 287-302	5.9	34
110	Sensor Fault Diagnosis. <i>Foundations and Trends in Systems and Control</i> , 2016 , 3, 249-362	4	18
109	Sensor fault tolerance in output feedback nonlinear model predictive control 2016 ,		5
108	Accelerated ADMM based on accelerated Douglas-Rachford splitting 2016 ,		5
107	Long horizon input parameterisations to enlarge the region of attraction of MPC. <i>Optimal Control Applications and Methods</i> , 2016 , 37, 139-153	1.7	7

106	Distributed synthesis and stability of cooperative distributed model predictive control for linear systems. <i>Automatica</i> , 2016 , 69, 117-125	5.7	82
105	Controller design and value function approximation for nonlinear dynamical systems. <i>Automatica</i> , 2016 , 67, 54-66	5.7	14
104	On convergence and performance certification of a continuous-time economic model predictive control scheme with time-varying performance index. <i>Automatica</i> , 2016 , 68, 305-313	5.7	24
103	MPC for Tracking Periodic References. <i>IEEE Transactions on Automatic Control</i> , 2016 , 61, 1123-1128	5.9	34
102	On the design of discrete-time Economic Model Predictive Controllers 2016 ,		4
101	Design of a distributed quantized luenberger filter for bounded noise 2016 ,		4
100	A nonlinear adaptive controller for airborne wind energy systems 2016 ,		1
99	A two-stage stochastic programming approach to employee scheduling in retail outlets with uncertain demand. <i>Omega</i> , 2015 , 53, 97-103	7.2	46
98	Constrained Spectrum Control. <i>IEEE Transactions on Automatic Control</i> , 2015 , 60, 1969-1974	5.9	7
97	Enumeration-based approach to solving parametric linear complementarity problems. <i>Automatica</i> , 2015 , 62, 243-248	5.7	31
96	Dominant speed factors of active set methods for fast MPC. <i>Optimal Control Applications and Methods</i> , 2015 , 36, 608-627	1.7	10
95	Multirate sliding mode disturbance compensation for model predictive control. <i>International Journal of Robust and Nonlinear Control</i> , 2015 , 25, 2984-3003	3.6	20
94	Providing ancillary service with commercial buildings: the Swiss perspective. <i>IFAC-PapersOnLine</i> , 2015 , 48, 6-13	0.7	10
93	Improved path following for kites with input delay compensation 2015 ,		5
92	A consensus algorithm for networks with process noise and quantization error 2015 ,		3
91	An energy efficient trajectory tracking controller for car-like vehicles using Model Predictive Control 2015 ,		4
90	A Model predictive control scheme with ultimate bound for economic optimization 2015 ,		7
89	Quantization design for unconstrained distributed optimization 2015 ,		7

88	Quantization design for distributed optimization with time-varying parameters 2015 ,		3
87	OpenBuild : An integrated simulation environment for building control 2015 ,		19
86	Guaranteeing input tracking for constrained systems: Theory and application to demand response 2015 ,		12
85	An optimization-based approach to extract faceted crystal shapes from stereoscopic images. <i>Computers and Chemical Engineering</i> , 2015 , 75, 171-183	4	16
84	Optimization Based Control for Target Estimation and Tracking via Highly Observable Trajectories. <i>Lecture Notes in Electrical Engineering</i> , 2015 , 495-504	0.2	6
83	. <i>IEEE Transactions on Control Systems Technology</i> , 2014 , 22, 1198-1205	4.8	68
82	Soft Constrained Model Predictive Control With Robust Stability Guarantees. <i>IEEE Transactions on Automatic Control</i> , 2014 , 59, 1190-1202	5.9	56
81	An augmented Lagrangian coordination-decomposition algorithm for solving distributed non-convex programs 2014 ,		5
80	Convex Computation of the Maximum Controlled Invariant Set For Polynomial Control Systems. <i>SIAM Journal on Control and Optimization</i> , 2014 , 52, 2944-2969	1.9	59
79	Parametric polytope reconstruction, an application to crystal shape estimation. <i>IEEE Transactions on Image Processing</i> , 2014 , 23, 4474-85	8.7	3
78	Model Predictive Control for Market-Based Demand Response Participation. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 11153-11158		10
77	Controller design and region of attraction estimation for nonlinear dynamical systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 2310-2316		5
76	Fast Alternating Minimization Algorithm for Model Predictive Control. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 11980-11986		6
75	Flexible triangular formation keeping of marine robotic vehicles using range measurements 1. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 5145-5150		2
74	Solving the infinite-horizon constrained LQR problem using splitting techniques. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 2285-2290		3
73	2014 ,		25
72	Optimization of an Airborne Wind Energy system using constrained Gaussian Processes 2014 ,		2
71	A parametric multi-convex splitting technique with application to real-time NMPC 2014 ,		4

70	Inexact fast alternating minimization algorithm for distributed model predictive control 2014 ,		9
69	An economic model predictive control scheme with terminal penalty for continuous-time systems 2014 ,		6
68	2014 ,		5
67	Splitting methods in control 2014 ,		4
66	Stochastic MPC Framework for Controlling the Average Constraint Violation. <i>IEEE Transactions on Automatic Control</i> , 2014 , 59, 1706-1721	5.9	29
65	2014 ,		7
64	Learning decision rules for energy efficient building control. <i>Journal of Process Control</i> , 2014 , 24, 763-773	3.9	19
63	On real-time robust model predictive control. <i>Automatica</i> , 2014 , 50, 683-694	5.7	68
62	Certification aspects of the fast gradient method for solving the dual of parametric convex programs. <i>Mathematical Methods of Operations Research</i> , 2013 , 77, 305-321	1	21
61	Online thermal control methods for multiprocessor systems. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2013 , 18, 1-26	1.5	8
60	Least-restrictive robust periodic model predictive control applied to room temperature regulation. <i>Automatica</i> , 2013 , 49, 2760-2766	5.7	18
59	Cooperative distributed tracking MPC for constrained linear systems: Theory and synthesis 2013 ,		10
58	Convex computation of the maximum controlled invariant set for discrete-time polynomial control systems 2013 ,		7
57	A Model Predictive Control scheme with additional performance index for transient behavior 2013 ,		7
56	Inner approximations of the region of attraction for polynomial dynamical systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013 , 46, 534-539		31
55	Robust distributed model predictive control of linear systems 2013 ,		10
54	Multi-Parametric Toolbox 3.0 2013 ,		409
53	Trajectory-tracking and path-following controllers for constrained underactuated vehicles using Model Predictive Control 2013 ,		26

52	Use of model predictive control and weather forecasts for energy efficient building climate control. <i>Energy and Buildings</i> , 2012 , 45, 15-27	7	712
51	Efficient interior point methods for multistage problems arising in receding horizon control 2012 ,		185
50	Distributed synthesis and control of constrained linear systems 2012 ,		39
49	Computational aspects of distributed optimization in model predictive control 2012 ,		25
48	Stochastic model predictive control: Controlling the average number of constraint violations 2012 ,		5
47	Learning near-optimal decision rules for energy efficient building control 2012 ,		4
46	Spectrogram-MPC: Enforcing hard constraints on systems' output spectra 2012 ,		3
45	Fast Predictive Control: Real-time Computation and Certification. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 94-98		11
44	A Set-Theoretic Method for Verifying Feasibility of a Fast Explicit Nonlinear Model Predictive Controller. <i>Lecture Notes in Control and Information Sciences</i> , 2012 , 289-311	0.5	6
43	. <i>IEEE Transactions on Automatic Control</i> , 2011 , 56, 2530-2541	5.9	35
42	. <i>IEEE Transactions on Automatic Control</i> , 2011 , 56, 1524-1534	5.9	111
41	MPC of constrained discrete-time linear periodic systems DA framework for asynchronous control: Strong feasibility, stability and optimality via periodic invariance. <i>Automatica</i> , 2011 , 47, 326-333	5.7	20
40	Towards computational complexity certification for constrained MPC based on Lagrange Relaxation and the fast gradient method 2011 ,		48
39	Constrained spectrum control using MPC 2011 ,		4
38	Learning a feasible and stabilizing explicit model predictive control law by robust optimization 2011 ,		15
37	Robust stability properties of soft constrained MPC 2010 ,		19
36	Least-restrictive robust MPC of periodic affine systems with application to building climate control 2010 ,		4
35	Polytopic Approximation of Explicit Model Predictive Controllers. <i>IEEE Transactions on Automatic Control</i> , 2010 , 55, 2542-2553	5.9	62

34	Multicore thermal management using approximate explicit model predictive control 2010 ,		3
33	Temperature sensor placement in thermal management systems for MPSoCs 2010 ,		6
32	Energy efficient building climate control using Stochastic Model Predictive Control and weather predictions 2010 ,		198
31	Predictive power dispatch through negotiated locational pricing 2010 ,		10
30	A Nonlinear Model Predictive Control Scheme with Multirate Integral Sliding Mode *. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2010 , 43, 232-237		2
29	Fast explicit nonlinear model predictive control via multiresolution function approximation with guaranteed stability. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2010 , 43, 533-538		10
28	A Cost-Effective Atomic Force Microscope for Undergraduate Control Laboratories. <i>IEEE Transactions on Education</i> , 2010 , 53, 328-334	2.1	4
27	Fault Tolerant Flight Control - A Survey. <i>Lecture Notes in Control and Information Sciences</i> , 2010 , 47-89	0.5	29
26	High-Speed Model Predictive Control: An Approximate Explicit Approach 2010 , 233-248		
25	System identification with missing data via nuclear norm regularization 2009 ,		8
24	Bilevel programming for analysis of low-complexity control of linear systems with constraints 2009 ,		1
23	Model predictive control of linear periodic systems - a unified framework including control of multirate and multiplexed systems 2009 ,		7
22	Real-time input-constrained MPC using fast gradient methods 2009 ,		71
21	Blocking parameterizations for improving the computational tractability of affine disturbance feedback MPC problems 2009 ,		8
20	A multiscale approximation scheme for explicit model predictive control with stability, feasibility, and performance guarantees 2009 ,		9
19	System identification via nuclear norm regularization for simulated moving bed processes from incomplete data sets 2009 ,		16
18	Real-time MPC - Stability through robust MPC design 2009 ,		12
17	Multiparametric linear programming for control 2008 ,		1

16	A tractable approximation of chance constrained stochastic MPC based on affine disturbance feedback 2008 ,		81
15	2008 ,		12
14	Real-time suboptimal model predictive control using a combination of explicit MPC and online optimization 2008 ,		14
13	On Polyhedral Projection and Parametric Programming. <i>Journal of Optimization Theory and Applications</i> , 2008 , 138, 207-220	1.6	35
12	Multiparametric Linear Programming with Applications to Control. <i>European Journal of Control</i> , 2007 , 13, 152-170	2.5	43
11	Efficient point location via subdivision walking with application to explicit MPC 2007 ,		6
10	Lexicographic perturbation for multiparametric linear programming with applications to control. <i>Automatica</i> , 2007 , 43, 1808-1816	5.7	37
9	Controller complexity reduction for piecewise affine systems through safe region elimination 2007 ,		11
8	Multiparametric Linear Complementarity Problems 2006 ,		21
7	Reverse Search for Parametric Linear Programming 2006 ,		4
6	Parametric Analysis of Controllers for Constrained Linear Systems 2006 ,		4
5	A logarithmic-time solution to the point location problem for parametric linear programming. <i>Automatica</i> , 2006 , 42, 2215-2218	5.7	53
4	On the facet-to-facet property of solutions to convex parametric quadratic programs. <i>Automatica</i> , 2006 , 42, 2209-2214	5.7	61
3	Primal-Dual Enumeration for Multiparametric Linear Programming. <i>Lecture Notes in Computer Science</i> , 2006 , 248-259	0.9	1
2	MPC fault-tolerant flight control case study: flight 1862. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2003 , 36, 119-124		65
1	Haptic interface control-design issues and experiments with a planar device		21