

# Mark R Cannon

## List of Publications by Year in descending order

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146  
papers

4,000  
citations

126708

33  
h-index

143772

57  
g-index

152  
all docs

152  
docs citations

152  
times ranked

1747  
citing authors

#	ARTICLE	IF	CITATIONS
1	Model Predictive Control. Advanced Textbooks in Control and Signal Processing, 2016, , .	0.6	237
2	Stochastic Tubes in Model Predictive Control With Probabilistic Constraints. IEEE Transactions on Automatic Control, 2011, 56, 194-200.	3.6	190
3	Explicit use of probabilistic distributions in linear predictive control. Automatica, 2010, 46, 1719-1724.	3.0	164
4	Homothetic tube model predictive control. Automatica, 2012, 48, 1631-1638.	3.0	151
5	Probabilistic Constrained MPC for Multiplicative and Additive Stochastic Uncertainty. IEEE Transactions on Automatic Control, 2009, 54, 1626-1632.	3.6	139
6	Parameterized Tube Model Predictive Control. IEEE Transactions on Automatic Control, 2012, 57, 2746-2761.	3.6	130
7	Space-frequency localized basis function networks for nonlinear system estimation and control. Neurocomputing, 1995, 9, 293-342.	3.5	120
8	Efficient nonlinear model predictive control algorithms. Annual Reviews in Control, 2004, 28, 229-237.	4.4	112
9	Robust MPC with recursive model update. Automatica, 2019, 103, 461-471.	3.0	112
10	Optimizing prediction dynamics for robust MPC. IEEE Transactions on Automatic Control, 2005, 50, 1892-1897.	3.6	102
11	Who needs QP for linear MPC anyway?. Automatica, 2002, 38, 879-884.	3.0	96
12	Robust Tube MPC for Linear Systems With Multiplicative Uncertainty. IEEE Transactions on Automatic Control, 2015, 60, 1087-1092.	3.6	94
13	Model predictive control for systems with stochastic multiplicative uncertainty and probabilistic constraints. Automatica, 2009, 45, 167-172.	3.0	92
14	Nonlinear model predictive control with polytopic invariant sets. Automatica, 2003, 39, 1487-1494.	3.0	90
15	Stochastic tube MPC with state estimation. Automatica, 2012, 48, 536-541.	3.0	88
16	Stochastic MPC with inequality stability constraints. Automatica, 2006, 42, 2169-2174.	3.0	68
17	Probabilistic tubes in linear stochastic model predictive control. Systems and Control Letters, 2009, 58, 747-753.	1.3	67
18	Constrained receding horizon predictive control for nonlinear systems. Automatica, 2002, 38, 2093-2102.	3.0	63

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19	General interpolation in mpc and its advantages. IEEE Transactions on Automatic Control, 2003, 48, 1092-1096.	3.6	62
20	Robust Tubes in Nonlinear Model Predictive Control. IEEE Transactions on Automatic Control, 2011, 56, 1942-1947.	3.6	62
21	Robust MPC Tower Damping for Variable Speed Wind Turbines. IEEE Transactions on Control Systems Technology, 2015, 23, 290-296.	3.2	62
22	Gaming Strategy for Electric Power With Random Demand. IEEE Transactions on Power Systems, 2005, 20, 1283-1292.	4.6	61
23	Non-linear model based predictive control. International Journal of Control, 1999, 72, 919-928.	1.2	58
24	Linear Quadratic Feasible Predictive Control. Automatica, 1998, 34, 1583-1592.	3.0	49
25	Distributed Stochastic MPC of Linear Systems With Additive Uncertainty and Coupled Probabilistic Constraints. IEEE Transactions on Automatic Control, 2017, 62, 3474-3481.	3.6	48
26	Recent developments in stochastic MPC and sustainable development. Annual Reviews in Control, 2004, 28, 23-35.	4.4	46
27	Energy Management in Plug-In Hybrid Electric Vehicles: Convex Optimization Algorithms for Model Predictive Control. IEEE Transactions on Control Systems Technology, 2020, 28, 2191-2203.	3.2	45
28	Cooperative distributed stochastic MPC for systems with state estimation and coupled probabilistic constraints. Automatica, 2015, 61, 89-96.	3.0	44
29	Extended invariance and its use in model predictive control. Automatica, 2005, 41, 2163-2169.	3.0	41
30	Explicit use of probabilistic distributions in linear predictive control. , 2010, , .		41
31	Efficient MPC optimization using Pontryagin's minimum principle. International Journal of Robust and Nonlinear Control, 2008, 18, 831-844.	2.1	37
32	MPC as a Tool for Sustainable Development Integrated Policy Assessment. IEEE Transactions on Automatic Control, 2006, 51, 145-149.	3.6	35
33	Equi-normalization and exact scaling dynamics in homothetic tube model predictive control. Systems and Control Letters, 2013, 62, 209-217.	1.3	35
34	On efficient computation of low-complexity controlled invariant sets for uncertain linear systems. International Journal of Control, 2010, 83, 1339-1346.	1.2	34
35	Adaptive Model Predictive Control with Robust Constraint Satisfaction. IFAC-PapersOnLine, 2017, 50, 3313-3318.	0.5	33
36	Constrained control of siso bilinear systems. IEEE Transactions on Automatic Control, 2003, 48, 1443-1447.	3.6	31

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37	Infinite horizon predictive control of constrained continuous-time linear systems. <i>Automatica</i> , 2000, 36, 943-955.	3.0	29
38	Robust MPC strategy with optimized polytopic dynamics for linear systems with additive and multiplicative uncertainty. <i>Systems and Control Letters</i> , 2015, 81, 34-41.	1.3	29
39	Nonlinear constrained predictive control applied to a coupled-tanks apparatus. <i>IET Control Theory and Applications</i> , 2001, 148, 17-24.	1.7	27
40	Optimal Power Allocation in Battery/Supercapacitor Electric Vehicles Using Convex Optimization. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 12751-12762.	3.9	27
41	Computationally efficient algorithms for constraint handling with guaranteed stability and near optimality. <i>International Journal of Control</i> , 2001, 74, 1678-1689.	1.2	26
42	Efficient non-linear model based predictive control. <i>International Journal of Control</i> , 2001, 74, 361-372.	1.2	26
43	Robust Adaptive Tube Model Predictive Control. , 2019, , .		26
44	Constrained predictive control and its application to a coupled-tanks apparatus. <i>International Journal of Control</i> , 2001, 74, 552-564.	1.2	25
45	Consensus in opinion dynamics as a repeated game. <i>Automatica</i> , 2018, 90, 204-211.	3.0	25
46	Successive Linearization NMPC for a Class of Stochastic Nonlinear Systems. <i>Lecture Notes in Control and Information Sciences</i> , 2009, , 249-262.	0.6	25
47	Efficient active set optimization in triple mode MPC. <i>IEEE Transactions on Automatic Control</i> , 2001, 46, 1307-1312.	3.6	24
48	Fully parameterized tube model predictive control. <i>International Journal of Robust and Nonlinear Control</i> , 2012, 22, 1330-1361.	2.1	23
49	Distributed stochastic MPC for systems with parameter uncertainty and disturbances. <i>International Journal of Robust and Nonlinear Control</i> , 2018, 28, 2424-2441.	2.1	20
50	Robust adaptive model predictive control: Performance and parameter estimation. <i>International Journal of Robust and Nonlinear Control</i> , 2021, 31, 8703-8724.	2.1	20
51	COSMO: A Conic Operator Splitting Method for Convex Conic Problems. <i>Journal of Optimization Theory and Applications</i> , 2021, 190, 779-810.	0.8	20
52	MPC for Stochastic Systems. , 2007, , 255-268.		19
53	Fully Parameterized Tube MPC. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 197-202.	0.4	19
54	Fast Dual-Loop Nonlinear Receding Horizon Control for Energy Management in Hybrid Electric Vehicles. <i>IEEE Transactions on Control Systems Technology</i> , 2019, 27, 1060-1070.	3.2	18

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55	Optimal energy management for hybrid electric aircraft. IFAC-PapersOnLine, 2020, 53, 6043-6049.	0.5	18
56	LTV models in MPC for sustainable development. International Journal of Control, 2006, 79, 63-73.	1.2	17
57	Fast Self-Triggered MPC for Constrained Linear Systems With Additive Disturbances. IEEE Transactions on Automatic Control, 2021, 66, 3624-3637.	3.6	17
58	Recent developments in generalized predictive control for continuous-time systems. International Journal of Control, 1999, 72, 164-173.	1.2	16
59	Enlargement of polytopic terminal region in NMPC by interpolation and partial invariance. Automatica, 2004, 40, 311-317.	3.0	16
60	Efficient prediction strategies for disturbance compensation in stochastic MPC. International Journal of Systems Science, 2013, 44, 1344-1353.	3.7	16
61	Modelling and optimisation for sustainable development policy assessment. European Journal of Operational Research, 2005, 164, 475-490.	3.5	15
62	Robust MPC for linear systems with bounded multiplicative uncertainty. , 2012, , .		15
63	COSMO: A conic operator splitting method for large convex problems. , 2019, , .		15
64	Linear stochastic MPC under finitely supported multiplicative uncertainty. , 2012, , .		14
65	The design of dynamics in the prediction structure of robust MPC. International Journal of Control, 2013, 86, 2096-2103.	1.2	14
66	Fast Optimal Energy Management With Engine On/Off Decisions for Plug-in Hybrid Electric Vehicles. , 2019, 3, 1074-1079.		14
67	Efficient Constrained Model Predictive Control with Asymptotic Optimality. SIAM Journal on Control and Optimization, 2002, 41, 60-82.	1.1	13
68	Constrained NMPC via state-space partitioning for input affine non-linear systems. International Journal of Control, 2003, 76, 1516-1526.	1.2	13
69	Dynamic non-minimum phase compensation for SISO nonlinear, affine in the input systems. Automatica, 2006, 42, 1969-1975.	3.0	13
70	Striped Parameterized Tube Model Predictive Control. Automatica, 2016, 67, 303-309.	3.0	13
71	Fast suboptimal predictive control with guaranteed stability. Systems and Control Letters, 1998, 35, 19-29.	1.3	12
72	An interpolation strategy for discrete-time bilinear MPC problems. IEEE Transactions on Automatic Control, 2002, 47, 775-778.	3.6	12

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73	Stochastic MPC for Systems with both Multiplicative and Additive Disturbances. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2291-2296.	0.4	12
74	An ADMM Algorithm for MPC-based Energy Management in Hybrid Electric Vehicles with Nonlinear Losses. , 2018, , .		12
75	Stochastic Model Predictive Control with Discounted Probabilistic Constraints. , 2018, , .		12
76	Stochastic MPC for Additive and Multiplicative Uncertainty Using Sample Approximations. IEEE Transactions on Automatic Control, 2019, 64, 3883-3888.	3.6	12
77	Constrained MPC using feedback linearization on SISO bilinear systems with unstable inverse dynamics. International Journal of Control, 2005, 78, 638-646.	1.2	11
78	An algorithm for reducing complexity in parametric predictive control. International Journal of Control, 2005, 78, 1511-1520.	1.2	11
79	Regions of attraction and recursive feasibility in robust MPC. , 2013, , .		11
80	Stochastic tube MPC for LPV systems with probabilistic set inclusion conditions. , 2014, , .		11
81	Nonlinear predictive control of hot strip rolling mill. International Journal of Robust and Nonlinear Control, 2003, 13, 365-380.	2.1	10
82	Invariant sets for feedback linearisation based nonlinear predictive control. IET Control Theory and Applications, 2005, 152, 259-265.	1.7	10
83	Improvements in the efficiency of linear MPC. Automatica, 2010, 46, 226-229.	3.0	10
84	Robust and stochastic linear MPC for systems subject to multiplicative uncertainty. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 335-341.	0.4	10
85	An active set solver for input-constrained robust receding horizon control. Automatica, 2014, 50, 155-161.	3.0	9
86	Robust positively invariant sets for state dependent and scaled disturbances. , 2015, , .		9
87	A line search improvement of efficient MPC. Automatica, 2010, 46, 1920-1924.	3.0	8
88	Recursively feasible Robust MPC for linear systems with additive and multiplicative uncertainty using optimized polytopic dynamics. , 2013, , .		8
89	Stochastic Model Predictive Control. , 2014, , 1-9.		8
90	Nonlinear MPC for supervisory control of hybrid electric vehicles. , 2016, , .		8

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91	How scaling of the disturbance set affects robust positively invariant sets for linear systems. International Journal of Robust and Nonlinear Control, 2017, 27, 3236-3258.	2.1	8
92	Stability, Feasibility, Optimality and the Degrees of Freedom in Constrained Predictive Control. , 2000, , 99-113.		7
93	A Youla parameter approach to robust constrained linear model predictive control. , 2009, , .		7
94	Stochastic tubes in model predictive control with probabilistic constraints. , 2010, , .		7
95	A missing link between nonlinear MPC schemes with guaranteed stability. , 2015, , .		7
96	Some observations on the activity of terminal constraints in linear MPC. , 2016, , .		7
97	On the Computation of $\lambda$ - Contractive Sets for Linear Constrained Systems. IEEE Transactions on Automatic Control, 2017, 62, 1498-1504.	3.6	7
98	ADMM for MPC with state and input constraints, and input nonlinearity. , 2018, , .		7
99	A clique graph based merging strategy for decomposable SDPs. IFAC-PapersOnLine, 2020, 53, 7355-7361.	0.5	7
100	Efficient robust output feedback MPC. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7957-7962.	0.4	6
101	Striped Parameterized Tube Model Predictive Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 11998-12003.	0.4	6
102	Convergence of Stochastic Nonlinear Systems and Implications for Stochastic Model-Predictive Control. IEEE Transactions on Automatic Control, 2021, 66, 2832-2839.	3.6	6
103	Stochastic Model Predictive Control. , 2020, , 1-7.		6
104	Extension of efficient predictive control to the nonlinear case. International Journal of Robust and Nonlinear Control, 2005, 15, 219-231.	2.1	5
105	Input-output feedback linearization for nonminimum phase nonlinear systems through periodic use of synthetic outputs. Systems and Control Letters, 2008, 57, 626-630.	1.3	5
106	Relaxation of output zeroing for bilinear non-minimum phase systems. International Journal of Control, 2008, 81, 1139-1146.	1.2	5
107	Improvements on the efficiency of linear MPC. , 2009, , .		5
108	MPC on state space models with stochastic input map. , 2006, , .		4

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109	Mean-variance receding horizon control for discrete time linear stochastic systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 15321-15326.	0.4	4
110	Periodic use of time-varying state feedbacks for the receding horizon control of bilinear systems. International Journal of Control, Automation and Systems, 2009, 7, 151-155.	1.6	4
111	Offline tube design for efficient implementation of parameterized tube model predictive control. , 2012, , .		4
112	Robust consensus in social networks and coalitional games. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1537-1542.	0.4	4
113	Time-average constraints in stochastic Model Predictive Control. , 2017, , .		4
114	Stochastic MPC With Dynamic Feedback Gain Selection and Discounted Probabilistic Constraints. IEEE Transactions on Automatic Control, 2022, 67, 5885-5899.	3.6	4
115	Scenario Model Predictive Control for Data-Based Energy Management in Plug-In Hybrid Electric Vehicles. IEEE Transactions on Control Systems Technology, 2022, 30, 2522-2533.	3.2	4
116	MPC Stability Constraints and Their Implementations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 205-212.	0.4	3
117	Asymmetric constraints with polytopic sets in MPC with application to coupled tanks system. International Journal of Robust and Nonlinear Control, 2004, 14, 341-353.	2.1	3
118	Efficient MPC Optimization using Pontryagin's Minimum Principle. , 2006, , .		3
119	Probabilistic constrained MPC for systems with multiplicative and additive stochastic uncertainty. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 15297-15302.	0.4	3
120	An active set solver for input-constrained robust receding horizon control. , 2011, , .		3
121	An active set solver for min-max robust control. , 2013, , .		3
122	Active set solver for min-max robust control with state and input constraints. International Journal of Robust and Nonlinear Control, 2016, 26, 3209-3231.	2.1	3
123	Invariant cover: Existence, cardinality bounds, and computation. Automatica, 2021, 129, 109588.	3.0	3
124	Closed-Loop Stabilizing MPC for Discrete-Time Bilinear Systems. European Journal of Control, 2002, 8, 304-314.	1.6	2
125	Robust tubes in nonlinear model predictive control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 208-213.	0.4	2
126	Application of Optimal Control Algorithm to Inertia Friction Welding Process. IEEE Transactions on Control Systems Technology, 2013, 21, 891-898.	3.2	2



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127	Parametric robust positively invariant sets for linear systems with scaled disturbances. , 2016, , .		2
128	Parallel ADMM for robust quadratic optimal resource allocation problems. , 2019, , .		2
129	Output feedback stochastic MPC with packet losses. IFAC-PapersOnLine, 2020, 53, 7105-7110.	0.5	2
130	Stochastic output feedback MPC with intermittent observations. Automatica, 2022, 141, 110282.	3.0	2
131	Output zeroing for discrete time non-minimum phase bilinear systems. , 2007, , .		1
132	A line search improvement of efficient MPC. , 2010, , .		1
133	On prediction strategies in stochastic MPC. , 2011, , .		1
134	Admissible sets for chance-constrained difference inclusions. , 2016, , .		1
135	Robust MPC for Multiplicative and Mixed Uncertainty. Advanced Textbooks in Control and Signal Processing, 2016, , 175-240.	0.6	1
136	Distributed stochastic MPC of linear systems with parameter uncertainty and disturbances. , 2016, , .		1
137	Introduction to Stochastic MPC. Advanced Textbooks in Control and Signal Processing, 2016, , 243-269.	0.6	1
138	Closed-Loop Optimization Strategies for Additive Uncertainty. Advanced Textbooks in Control and Signal Processing, 2016, , 121-174.	0.6	1
139	Maximising the guaranteed feasible set for stochastic MPC with chance constraints. IFAC-PapersOnLine, 2017, 50, 8220-8225.	0.5	1
140	Constrained predictive control of linear distributed parameter systems. International Journal of Control, 2004, 77, 941-948.	1.2	0
141	Special issue to commemorate the work of D. W. Clarke. International Journal of Robust and Nonlinear Control, 2012, 22, 1293-1295.	2.1	0
142	Robust receding horizon control for linear systems with state and input dependent disturbances. IFAC-PapersOnLine, 2015, 48, 533-539.	0.5	0
143	Adaptive Robust MPC: Combining Robustness with Online Performance Enhancement. , 2018, , .		0
144	On the convergence of stochastic MPC to terminal modes of operation. , 2019, , .		0

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145	Stochastic Model Predictive Control. , 2021, , 2190-2196.		0
146	Explicit Use of Probability Distributions in SMPC. Advanced Textbooks in Control and Signal Processing, 2016, , 303-341.	0.6	0