Robert R Bitmead

List of Publications by Year
in descending order

69 papers	1,897 citations	304743 22 h-index	265206 42 g-index
70 all docs	70 docs citations	70 times ranked	999 citing authors

#	Article	IF	Citations
1	Asymptotically fast solution of toeplitz and related systems of linear equations. Linear Algebra and Its Applications, 1980, 34, 103-116.	0.9	226
2	Iterative weighted least-squares identification and weighted LQG control design. Automatica, 1995, 31, 1577-1594.	5.0	165
3	State estimation for linear systems with state equality constraints. Automatica, 2007, 43, 1363-1368.	5.0	149
4	Incorporating state estimation into model predictive control and its application to network traffic control. Automatica, 2005, 41, 595-604.	5.0	137
5	Monotonicity and stabilizability- properties of solutions of the Riccati difference equation: Propositions, lemmas, theorems, fallacious conjectures and counterexamples. Systems and Control Letters, 1985, 5, 309-315.	2.3	104
6	Exponential convergence of recursive least squares with exponential forgetting factor. Systems and Control Letters, 1982, 2, 77-82.	2.3	96
7	Non-linear dynamics in adaptive control: Chaotic and periodic stabilization. Automatica, 1986, 22, 641-655.	5.0	96
8	Persistently exciting model predictive control. International Journal of Adaptive Control and Signal Processing, 2014, 28, 536-552.	4.1	85
9	Direct iterative tuning via spectral analysis. Automatica, 2000, 36, 1301-1307.	5.0	83
10	Conditions for stability of the extended Kalman filter and their application to the frequency tracking problem. Mathematics of Control, Signals, and Systems, 1995, 8, 1-26.	2.3	82
11	Robust constrained predictive control using comparison model. Automatica, 2005, 41, 97-106.	5.0	45
12	Stability of matrix polynomialsâ€. International Journal of Control, 1977, 26, 235-247.	1.9	43
13	Non-linear system identification using closed-loop data with no external excitation: The case of a lean combustion chamber. International Journal of Control, 2001, 74, 1796-1806.	1.9	41
14	The Matrix Cauchy Index: Properties and Applications. SIAM Journal on Applied Mathematics, 1977, 33, 655-672.	1.8	31
15	Fitting nonlinear low-order models for combustion instability control. Control Engineering Practice, 2001, 9, 1301-1317.	5.5	31
16	Nonlinear averaging theorems, and the determination of parameter convergence rates in adaptive control. Systems and Control Letters, 1986, 7, 145-157.	2.3	28
17	Non-linear dynamics in adaptive control. Automatica, 1988, 24, 485-497.	5.0	28
18	The application of an iterative identification and controller design to a sugar cane crushing mill. Automatica, 1995, 31, 1547-1563.	5.0	28

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19	Optimal control for linear systems with state equality constraints. Automatica, 2007, 43, 1573-1582.	5.0	28
20	Subspace system identification for training-based MIMO channel estimation. Automatica, 2005, 41, 1623-1632.	5.0	27
21	Particle Model Predictive Control: Tractable Stochastic Nonlinear Output-Feedback MPC. IFAC-PapersOnLine, 2017, 50, 15361-15366.	0.9	24
22	Blind adaptation of decision feedback equalizers: Gross convergence properties. International Journal of Adaptive Control and Signal Processing, 1993, 7, 497-523.	4.1	23
23	On resampling and uncertainty estimation in Linear System Identification. Automatica, 2010, 46, 785-795.	5.0	23
24	Stochastic observability in network state estimation and control. Automatica, 2011, 47, 65-78.	5.0	22
25	Convergence rate determination for gradient-based adaptive estimators. Automatica, 1986, 22, 185-191.	5.0	21
26	A Kalman-filtering derivation of simultaneous input and state estimation. Automatica, 2019, 108, 108478.	5.0	21
27	On modelling and control of a rotary sugar dryer. Control Engineering Practice, 2001, 9, 249-266.	5.5	20
28	Stochastic output-feedback model predictive control. Automatica, 2018, 94, 315-323.	5.0	15
29	Decentralized control of multi-channel systems with direct control feedthrough. International Journal of Control, 1989, 49, 2057-2075.	1.9	14
30	Exponential convergence of recursive least squares with forgetting factor for multiple-output systems. Automatica, 2021, 124, 109389.	5.0	12
31	Markov modeling in hepatitis B screening and linkage to care. Theoretical Biology and Medical Modelling, 2017, 14, 11.	2.1	11
32	Feedforward for stabilization in the presence of constraints. Journal of Process Control, 2012, 22, 659-665.	3.3	10
33	Decision support tool for hospital resource allocation during the COVID-19 pandemic. Informatics in Medicine Unlocked, 2021, 24, 100618.	3.4	10
34	Design problems for sensitivity and complementary sensitivity. Systems and Control Letters, 1990, 15, 137-146.	2.3	9
35	Unstable ones in understood algebraic questions of modelling for control design. Mathematical Modelling of Systems, 1997, 3, 59-76.	0.7	8
36	Optimal controller properties from closed-loop experiments. Automatica, 1998, 34, 83-91.	5.0	8

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37	Controller certification. Automatica, 2008, 44, 167-176.	5.0	8
38	Escape time formulation of state estimation and stabilization with quantized intermittent communication. Automatica, 2015, 61, 201-210.	5.0	6
39	Predictive Coding and Control. IEEE Transactions on Control of Network Systems, 2019, 6, 906-918.	3.7	6
40	Simultaneous input & state estimation, singular filtering and stability. Automatica, 2022, 137, 110017.	5.0	6
41	Local minima escape transients by stochastic gradient descent algorithms in blind adaptive equalizers. Automatica, 1995, 31, 637-641.	5.0	5
42	Prediction error methods for limit cycle data. Automatica, 2002, 38, 1753-1760.	5.0	5
43	Vinnicombe's winding number condition is not transitive: Impacts for adaptive control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 783-787.	0.4	5
44	Instability detection of ARMA systems based on AR system identification. Systems and Control Letters, 2011, 60, 185-191.	2.3	5
45	Disturbance and State Estimation in Partially Known Power Networks. , 2019, , .		5
46	Fast simulation of rare events using reverse-time models. Computer Networks, 1990, 20, 315-321.	1.0	4
47	The combined sensitivity and phase margin problem. Automatica, 1992, 28, 417-421.	5.0	4
48	Cross-estimator design for coordinated systems: Constraints, covariance, and communications resource assignment. Automatica, 2008, 44, 1394-1401.	5.0	4
49	Rejection of Aliased Disturbances in a Production Pulsed Light Source. IEEE Transactions on Control Systems Technology, 2013, 21, 480-488.	5.2	4
50	Forward-looking persistent excitation in model predictive control. Automatica, 2022, 136, 110033.	5.0	4
51	Observability and reconstructibility of hidden Markov models: Implications for control and network congestion control. , 2010, , .		3
52	Model Predictive Control with Forward-Looking Persistent Excitation. IFAC-PapersOnLine, 2020, 53, 7070-7076.	0.9	3
53	Sampling rate versus quantisation in speech coders. Signal Processing, 1997, 56, 209-218.	3.7	2
54	Identification for Nonlinear Feedback Limit-Cycle Systems Using Harmonic Balance Methods. , 2006, , .		2

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55	Stochastic reconstructibility and estimability. , 2009, , .		2
56	Optimal dual adaptive agile mobile wireless power control. Automatica, 2016, 74, 84-89.	5.0	2
57	Optical adaptive signal processing: An appraisal. International Journal of Adaptive Control and Signal Processing, 1991, 5, 87-92.	4.1	1
58	Decentralized Control Techniques in Periodically Time-Varying Discrete-Time Control Systems. Control and Dynamic Systems, 1995, 72, 153-181.	0.1	1
59	Discrete-Time Fake Riccati Equations for Kalman Filtering and Receding-Horizon Control. Control and Dynamic Systems, 1996, 76, 79-102.	0.1	1
60	Communication Resources for Disturbance Rejection in Coordinated Vehicle Control. , 2006, , .		1
61	Divination of closed-loop stability and performance via frequency response function estimates. Automatica, 2012, 48, 1405-1414.	5.0	1
62	Escape time formulation of state estimation and stabilization with intermittent communication. , 2013, , .		1
63	Surrogate problems for tractable excitation management in stochastic MPC. , 2019, , .		1
64	LQG Control Performance With Low-Bitrate Periodic Coding. IEEE Transactions on Control of Network Systems, 2022, 9, 320-333.	3.7	1
65	Robust adaptive quantization: A Kalmanâ€filterâ€based approach. International Journal of Adaptive Control and Signal Processing, 1994, 8, 433-445.	4.1	0
66	Dimension Analysis for Least-Mean-Square Algorithms. , 2005, , 145-173.		0
67	Online reference computation for feasible model predictive control. , 2007, , .		0
68	Finding real rational weighting functions for robust control analysis and design; connections to boundary interpolation and circuit synthesis. Communications in Information and Systems, 2011, 11, 153-172.	0.5	0
69	Trade-offs among Conflicting Objectives in Robust Control Design. Control and Dynamic Systems, 1992, 50, 1-53.	0.1	0