

# Bo G Wahlberg

## List of Publications by Year in descending order

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109  
papers

3,469  
citations

236925

25  
h-index

168389

53  
g-index

110  
all docs

110  
docs citations

110  
times ranked

1437  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Biologically Inspired Computational Model of Time Perception. IEEE Transactions on Cognitive and Developmental Systems, 2022, 14, 258-268.	3.8	1
2	Aperiodic Communication for MPC in Autonomous Cooperative Landing. IFAC-PapersOnLine, 2021, 54, 113-118.	0.9	4
3	Learning Models of Model Predictive Controllers using Gradient Data. IFAC-PapersOnLine, 2021, 54, 7-12.	0.9	4
4	Cooperative System Identification via Correctional Learning. IFAC-PapersOnLine, 2021, 54, 19-24.	0.9	4
5	Variable Prediction Horizon Control for Cooperative Landing on Moving Target. , 2021, , .		2
6	Learning the Step-size Policy for the Limited-Memory Broyden-Fletcher-Goldfarb-Shanno Algorithm. , 2021, , .		6
7	Autonomous Bus Driving: A Novel Motion-Planning Approach. IEEE Vehicular Technology Magazine, 2021, 16, 29-37.	3.4	5
8	Identifiability and Solvability in Inverse Linear Quadratic Optimal Control Problems. Journal of Systems Science and Complexity, 2021, 34, 1840-1857.	2.8	2
9	Hidden Markov Models: Inverse Filtering, Belief Estimation and Privacy Protection. Journal of Systems Science and Complexity, 2021, 34, 1801-1820.	2.8	8
10	WARA-PS: a research arena for public safety demonstrations and autonomous collaborative rescue robotics experimentation. Autonomous Intelligent Systems, 2021, 1, 1.	3.1	4
11	Inverse Filtering for Hidden Markov Models With Applications to Counter-Adversarial Autonomous Systems. IEEE Transactions on Signal Processing, 2020, 68, 4987-5002.	5.3	15
12	What did your adversary believe? Optimal Filtering and Smoothing in Counter-Adversarial Autonomous Systems. , 2020, , .		1
13	The Gaussian Maximum-Likelihood Estimator Versus the Optimally Weighted Least-Squares Estimator [Lecture Notes]. IEEE Signal Processing Magazine, 2020, 37, 195-199.	5.6	0
14	Distributed Model Predictive Control for Cooperative Landing. IFAC-PapersOnLine, 2020, 53, 15180-15185.	0.9	5
15	How to Protect Your Privacy? A Framework for Counter-Adversarial Decision Making. , 2020, , .		3
16	Optimization-Based On-Road Path Planning for Articulated Vehicles. IFAC-PapersOnLine, 2020, 53, 15572-15579.	0.9	15
17	Nonlinear Curvature Modeling for MPC of Autonomous Vehicles. , 2020, , .		1
18	A Geometric Approach to On-road Motion Planning for Long and Multi-Body Heavy-Duty Vehicles. , 2020, , .		6

#	ARTICLE	IF	CITATIONS
19	Estimating Private Beliefs of Bayesian Agents Based on Observed Decisions. , 2019, 3, 523-528.		10
20	Path Planning for Autonomous Bus Driving in Highly Constrained Environments. , 2019, , .		15
21	Model Predictive Control for Autonomous Ship Landing in a Search and Rescue Scenario. , 2019, , .		15
22	Verification of Cooperative Maneuvers in FlightGear using MPC and Backwards Reachable Sets. , 2018, , .		6
23	Inverse Filtering for Linear Gaussian State-Space Models. , 2018, , .		9
24	Subspace Hammerstein Model Identification under Periodic Disturbance. IFAC-PapersOnLine, 2018, 51, 335-340.	0.9	13
25	Combining Lattice-Based Planning and Path Optimization in Autonomous Heavy Duty Vehicle Applications. , 2018, , .		14
26	Experimental validation of model predictive control stability for autonomous driving. Control Engineering Practice, 2018, 81, 244-255.	5.5	32
27	Algorithms and Performance Analysis for Stochastic Wiener System Identification. , 2018, 2, 471-476.		5
28	An analysis of the SPARSEVA estimate for the finite sample data case. Automatica, 2018, 96, 141-149.	5.0	1
29	Model Predictive Control oriented experiment design for system identification: A graph theoretical approach. Journal of Process Control, 2017, 52, 75-84.	3.3	6
30	Application-Oriented Input Design in System Identification: Optimal Input Design for Control [Applications of Control]. IEEE Control Systems, 2017, 37, 31-56.	0.8	39
31	PC136 An Optimal Gender-Specific Treatment Policy for Abdominal Aortic Aneurysms Constructed Using a Markov Decision Process Model. Journal of Vascular Surgery, 2017, 65, 175S.	1.1	0
32	Spatial Model Predictive Control for Smooth and Accurate Steering of an Autonomous Truck. IEEE Transactions on Intelligent Vehicles, 2017, 2, 238-250.	12.7	46
33	Computing monotone policies for Markov decision processes: a nearly-isotonic penalty approach * *This work was partially supported by the Swedish Research Council under contract 2016-06079 and the Linnaeus Center ACCESS at KTH.. IFAC-PapersOnLine, 2017, 50, 8429-8434.	0.9	2
34	Asymptotically Efficient Identification of Known-Sensor Hidden Markov Models. IEEE Signal Processing Letters, 2017, 24, 1813-1817.	3.6	4
35	Cooperative rendezvous of ground vehicle and aerial vehicle using model predictive control. , 2017, , .		17
36	A Class of Nonconvex Penalties Preserving Overall Convexity in Optimization-Based Mean Filtering. IEEE Transactions on Signal Processing, 2016, 64, 6650-6664.	5.3	27

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37	Accurate Changing Point Detection for l1 Mean Filtering. IEEE Signal Processing Letters, 2016, , 1-1.	3.6	7
38	Identification of Stochastic Wiener Systems using Indirect Inference**This work was partially supported by the Swedish Research Council and the Linnaeus Center ACCESS at KTH. The research leading to these results has received funding from The European Research Council under the European Community's Seventh Framework program (FP7 2007-2013) / ERC Grant Agreement N. 267381. IFAC-PapersOnLine, 2015, 48, 620-625.	0.9	8
39	Evaluation of Spectral Learning for the Identification of Hidden Markov Models. IFAC-PapersOnLine, 2015, 48, 897-902.	0.9	2
40	Reweighted nuclear norm regularization: A SPARSEVA approach**This work was partially supported by the Swedish Research Council and the Linnaeus Center ACCESS at KTH.. IFAC-PapersOnLine, 2015, 48, 1172-1177.	0.9	3
41	How to monitor and mitigate stair-casing in L1 trend filtering. , 2015, , .		8
42	Clothoid-based model predictive control for autonomous driving. , 2015, , .		43
43	On optimal input design for networked systems. Automatica, 2015, 53, 275-281.	5.0	3
44	Approximative model reconstruction of cascade systems. Systems and Control Letters, 2014, 69, 90-97.	2.3	1
45	Estimation of building occupancy levels through environmental signals deconvolution. , 2013, , .		42
46	On optimal input design for feed-forward control. , 2013, , .		1
47	On the Performance of Optimal Input Signals for Frequency Response Estimation. IEEE Transactions on Automatic Control, 2012, 57, 766-771.	5.7	12
48	Sparse Estimation Techniques for Basis Function Selection in Wideband System Identification*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 977-982.	0.4	5
49	Modeling and Control of Dual Arm Robotic Manipulators using Decentralized Navigation Functions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 241-246.	0.4	0
50	An ADMM Algorithm for a Class of Total Variation Regularized Estimation Problems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 83-88.	0.4	133
51	Analyzing iterations in identification with application to nonparametric $\hat{z}$ -norm estimation. Automatica, 2012, 48, 2776-2788.	5.0	29
52	On asymptotic frequency response variance expressions for estimated output error models. , 2012, , .		0
53	An ADMM algorithm for solving $\ x\ _1$ regularized MPC. , 2012, , .		15
54	Analyzing Iterations in Identification with Application to Nonparametric $\hat{z}$ -norm Estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9972-9977.	0.4	0

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55	On Identification of Parallel Cascade Serial Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9978-9983.	0.4	8
56	On optimal input signal design for identification of output error models. , 2011, , .		7
57	On $\frac{1}{\sigma^2}$ mean and variance filtering. , 2011, , .		1
58	On estimation of the gain of a dynamical system. , 2011, , .		4
59	A least squares approach to direct frequency response estimation. , 2011, , .		10
60	Non-parametric methods for $L_2$ -gain estimation using iterative experiments. Automatica, 2010, 46, 1376-1381.	5.0	48
61	On optimal input design in system identification for control. , 2010, , .		20
62	On optimal input signal design for frequency response estimation. , 2010, , .		6
63	On subspace identification of cascade structured systems. , 2010, , .		3
64	New Square-Root Factorization of Inverse Toeplitz Matrices. IEEE Signal Processing Letters, 2010, 17, 137-140.	3.6	3
65	Input design using Markov chains for system identification. , 2009, , .		8
66	Variance results for identification of cascade systems. Automatica, 2009, 45, 1443-1448.	5.0	28
67	Partially Observed Markov Decision Process Multiarmed Bandits – Structural Results. Mathematics of Operations Research, 2009, 34, 287-302.	1.3	32
68	Data-Driven Methods for L2-Gain Estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1597-1602.	0.4	11
69	On Estimation of Cascade Systems with Common Dynamics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1116-1120.	0.4	0
70	Variance analysis for identification of cascade systems. , 2008, , .		4
71	Cascade structural model approximation of identified state space models. , 2008, , .		7
72	Stabilization of Induction Motor Drives With Poorly Damped Input Filters. IEEE Transactions on Industrial Electronics, 2007, 54, 2724-2734.	7.9	83

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73	On The Relation Between Weighted Frequency-Domain Maximum-Likelihood Power Spectral Estimation and the Prefiltered Covariance Extension Approach. IEEE Transactions on Signal Processing, 2007, 55, 384-389.	5.3	7
74	Experiences from Subspace System Identification - Comments from Process Industry Users and Researchers. , 2007, , 315-327.		10
75	GAIN ESTIMATION FOR HAMMERSTEIN SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 784-789.	0.4	7
76	VALIDATION OF STABILITY FOR AN INDUCTION MACHINE DRIVE USING POWER ITERATIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 892-897.	0.4	5
77	Orthonormal Basis Functions in Time and Frequency Domain: Hambo Transform Theory. SIAM Journal on Control and Optimization, 2003, 42, 1347-1373.	2.1	21
78	Orthogonal Rational Functions: A Transformation Analysis. SIAM Review, 2003, 45, 689-705.	9.5	5
79	A feedback control scheme for reversing a truck and trailer vehicle. IEEE Transactions on Automation Science and Engineering, 2001, 17, 915-922.	2.3	99
80	Analysis of a low-complexity change detection scheme. International Journal of Adaptive Control and Signal Processing, 2000, 14, 481-503.	4.1	1
81	Selection of Best Orthonormal Rational Basis. SIAM Journal on Control and Optimization, 2000, 38, 995-1032.	2.1	17
82	Algorithms for time delay estimation using a low complexity exhaustive search. IEEE Transactions on Automatic Control, 1999, 44, 1031-1037.	5.7	11
83	On Consistency of Subspace Methods for System Identification. Automatica, 1998, 34, 1507-1519.	5.0	113
84	A frequency response estimation method based on smoothing and thresholding. International Journal of Adaptive Control and Signal Processing, 1998, 12, 407-416.	4.1	1
85	Analysis of state space system identification methods based on instrumental variables and subspace fitting. Automatica, 1997, 33, 1603-1616.	5.0	106
86	On approximation of stable linear dynamical systems using Laguerre and Kautz functions. Automatica, 1996, 32, 693-708.	5.0	206
87	A linear regression approach to state-space subspace system identification. Signal Processing, 1996, 52, 103-129.	3.7	84
88	Blind equalization by direct examination of the input sequences. IEEE Transactions on Communications, 1995, 43, 2213-2222.	7.8	35
89	System identification using Kautz models. IEEE Transactions on Automatic Control, 1994, 39, 1276-1282.	5.7	297
90	Constrained predictive control using orthogonal expansions. AIChE Journal, 1993, 39, 1810-1826.	3.6	38

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91	Asymptotic properties of the least-squares method for estimating transfer functions and disturbance spectra. <i>Advances in Applied Probability</i> , 1992, 24, 412-440.	0.7	71
92	Hard frequency-domain model error bounds from least-squares like identification techniques. <i>IEEE Transactions on Automatic Control</i> , 1992, 37, 900-912.	5.7	182
93	Asymptotic properties of the least-squares method for estimating transfer functions and disturbance spectra. <i>Advances in Applied Probability</i> , 1992, 24, 412-440.	0.7	65
94	System identification using Laguerre models. <i>IEEE Transactions on Automatic Control</i> , 1991, 36, 551-562.	5.7	637
95	An adaptive array for mobile communication systems. <i>IEEE Transactions on Vehicular Technology</i> , 1991, 40, 230-236.	6.3	233
96	Some asymptotic results in recursive identification using laguerre models. <i>International Journal of Adaptive Control and Signal Processing</i> , 1991, 5, 313-333.	4.1	24
97	ARMA spectral estimation of narrow-band processes via model reduction. <i>IEEE Transactions on Acoustics, Speech, and Signal Processing</i> , 1990, 38, 1144-1154.	2.0	10
98	The effects of rapid sampling in system identification. <i>Automatica</i> , 1990, 26, 167-170.	5.0	33
99	Factorizations that relax the positive real condition in continuous-time and fast-sampled ELS schemes. <i>International Journal of Adaptive Control and Signal Processing</i> , 1990, 4, 389-414.	4.1	3
100	Influence of Model Order on Change Detection in Noise-Free, Complex System. , 1990, , .		7
101	ESTIMATION OF AUTOREGRESSIVE MOVING-AVERAGE MODELS VIA HIGH-ORDER AUTOREGRESSIVE APPROXIMATIONS. <i>Journal of Time Series Analysis</i> , 1989, 10, 283-299.	1.2	21
102	Model reductions of high-order estimated models: the asymptotic ML approach. <i>International Journal of Control</i> , 1989, 49, 169-192.	1.9	61
103	Model reductions of high-order estimated models: the asymptotic ML approach. <i>International Journal of Control</i> , 1989, 49, 169-192.	1.9	1
104	Limit results for sampled systems. <i>International Journal of Control</i> , 1988, 48, 1267-1283.	1.9	67
105	On Model Reduction in System Identification. , 1986, , .		17
106	ARMA Spectral Estimation via Model Reduction. , 1986, , .		1
107	Design variables for bias distribution in transfer function estimation. , 1984, , .		6
108	On Frequency Weighting in Autoregressive Spectral Estimation. , 0, , .		1

#	ARTICLE	IF	CITATIONS
109	Modelling and Control of Series HEVs Including Resistive Losses and Varying Engine Efficiency. , 0, , .		5