Maarten Schoukens

List of Publications by Year
in descending order

48 papers	693 citations	687220 13 h-index	580701 25 g-index
49 all docs	49 docs citations	49 times ranked	498 citing authors

#	Article	IF	Citations
1	Identification of block-oriented nonlinear systems starting from linear approximations: A survey. Automatica, 2017, 85, 272-292.	3.0	150
2	Identification of Wienerâ€"Hammerstein systems by a nonparametric separation of the best linear approximation. Automatica, 2014, 50, 628-634.	3.0	55
3	Parametric Identification of Parallel Hammerstein Systems. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3931-3938.	2.4	51
4	Nonparametric Data-Driven Modeling of Linear Systems: Estimating the Frequency Response and Impulse Response Function. IEEE Control Systems, 2018, 38, 49-88.	1.0	36
5	Filterâ€based regularisation for impulse response modelling. IET Control Theory and Applications, 2017, 11, 194-204.	1.2	33
6	Parametric identification of parallel Wienerâ€"Hammerstein systems. Automatica, 2015, 51, 111-122.	3.0	32
7	Parametric Identification of Parallel Wiener Systems. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 2825-2832.	2.4	28
8	Structure discrimination in block-oriented models using linear approximations: A theoretic framework. Automatica, 2015, 53, 225-234.	3.0	28
9	Three Benchmarks Addressing Open Challenges in Nonlinear System Identification.* *We thank Torbjorn Wigren and Per Mattsson (Uppsala University, Sweden) for their help in realizing the cascaded tanks benchmark. This work was funded by the Fund for Scientific Research (FWO), the Methusalem grant of the Flemish Government (METH-1), the IAP VII/19 DYSCO program, and the ERC advanced grant SNLSID under contract 320378. The author J.P. Noel is a Postdoctoral Researcher of the Fonds de la Recherche Scientifique -. IFAC-PapersOnLine, 2017, 50, 446-451.	0.5	21
10	Initial estimates for Wienerâ€"Hammerstein models using phase-coupled multisines. Automatica, 2015, 60, 201-209.	3.0	20
11	Structure Detection of Wienerâ€"Hammerstein Systems With Process Noise. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 569-576.	2.4	20
12	Obtaining the Preinverse of a Power Amplifier Using Iterative Learning Control. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 4266-4273.	2.9	17
13	Fast identification of Wienerâ€Hammerstein systems using discrete optimisation. Electronics Letters, 2014, 50, 1942-1944.	0.5	16
14	Modeling the Nonlinear Cortical Response in EEG Evoked by Wrist Joint Manipulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 205-215.	2.7	14
15	Sampled-data adaptive observer for state-affine systems with uncertain output equation. Automatica, 2019, 103, 96-105.	3.0	14
16	Study of the effective number of parameters in nonlinear identification benchmarks. , 2013, , .		12
17	Extending the Best Linear Approximation Framework to the Process Noise Case. IEEE Transactions on Automatic Control, 2020, 65, 1514-1524.	3.6	9
18	Comparison of several dataâ€driven nonâ€linear system identification methods on a simplified glucoregulatory system example. IET Control Theory and Applications, 2014, 8, 1921-1930.	1.2	8

#	Article	IF	Citations
19	Decoupling static nonlinearities in a parallel Wiener-Hammerstein system: A first-order approach. , 2015, , .		8
20	Artificial Neural Network Hysteresis Operators for the Identification of Hammerstein Hysteretic Systems. IFAC-PapersOnLine, 2021, 54, 702-707.	0.5	8
21	Comparison of least squares and exponential sine sweep methods for Parallel Hammerstein Models estimation. Mechanical Systems and Signal Processing, 2018, 104, 851-865.	4.4	7
22	On the Simulation of Polynomial NARMAX Models. , 2018, , .		7
23	Linear Parameter Varying Representation of a class of MIMO Nonlinear Systems. IFAC-PapersOnLine, 2018, 51, 94-99.	0.5	7
24	On the Initialization of Nonlinear LFR Model Identification with the Best Linear Approximation. IFAC-PapersOnLine, 2020, 53, 310-315.	0.5	7
25	From Nonlinear Identification to Linear Parameter Varying Models: Benchmark Examples. IFAC-PapersOnLine, 2018, 51, 419-424.	0.5	6
26	Parametric MIMO parallel Wiener identification. , 2011, , .		5
27	Frequency Response Functions of Linear Parameter-Varying Systems. IFAC-PapersOnLine, 2019, 52, 32-37.	0.5	5
28	Feedback identification of conductance-based models. Automatica, 2021, 123, 109297.	3.0	5
29	Non-linear State-space Model Identification from Video Data using Deep Encoders. IFAC-PapersOnLine, 2021, 54, 697-701.	0.5	5
30	Generation of initial estimates for Wiener-Hammerstein models via basis function expansions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 481-486.	0.4	4
31	Data-driven Modelling of Dynamical Systems Using Tree Adjoining Grammar and Genetic Programming. , 2019, , .		4
32	Grammar-based Representation and Identification of Dynamical Systems. , 2019, , .		4
33	A Tree Adjoining Grammar representation for models of stochastic dynamical systems. Automatica, 2020, 119, 109099.	3.0	4
34	Data-driven modeling of impedance biosensors: a subspace approach. Measurement Science and Technology, 2021, 32, 104009.	1.4	4
35	Improved Initialization of State-Space Artificial Neural Networks. , 2021, , .		4
36	Combining the best linear approximation and dimension reduction to identify the linear blocks of parallel Wiener systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 372-377.	0.4	3

#	Article	IF	Citations
37	Discrete Time Approximation of Continuous Time Nonlinear State Space Models " "This work was supported in part by the Fund for Scientific Research (FWO-Vlaanderen), by the Flemish Government (Methusalem), the Belgian Government through the Inter university Poles of Attraction (IAP VII) Program, and by the ERC advanced grant SNLSID, under contract 320378.. IFAC-PapersOnLine, 2017, 50, 8338-8346.	0.5	3
38	Tuning the hyperparameters of the filter-based regularization method for impulse response estimation. IFAC-PapersOnLine, 2017, 50, 12841-12846.	0.5	3
39	Feedback for nonlinear system identification. , 2019, , .		3
40	On Behavioral Interpolation in Local LPV System Identification. IFAC-PapersOnLine, 2019, 52, 20-25.	0.5	3
41	Best Linear Approximation of Nonlinear Continuous-Time Systems Subject to Process Noise and Operating in Feedback. IEEE Transactions on Instrumentation and Measurement, 2020, , 1-1.	2.4	3
42	Nonlinear Finite Impulse Response Estimation using Regularized Neural Networks. IFAC-PapersOnLine, 2021, 54, 174-179.	0.5	3
43	Sampled-Data Based State and Parameter Estimation for State-Affine Systems with Uncertain Output Equation. IFAC-PapersOnLine, 2018, 51, 491-496.	0.5	2
44	Toolbox for Discovering Dynamic System Relations via TAG Guided Genetic Programming. IFAC-PapersOnLine, 2021, 54, 379-384.	0.5	2
45	System identification of biophysical neuronal models. , 2020, , .		2
46	Filter interpretation of regularized impulse response modeling. , 2016, , .		1
47	Bayesian optimization for Tuning Lithography Processes. IFAC-PapersOnLine, 2021, 54, 827-832.	0.5	1
48	Vector network analysis for nonlinear systems. , 0, , 309-344.		0