

Torsten Sderstrm

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.

131
papers

2,263
citations

23
h-index

43
g-index

134
ext. papers

2,600
ext. citations

3.6
avg, IF

5.36
L-index

#	Paper	IF	Citations
131	Frequency domain identification of FIR models in the presence of additive input/output noise. <i>Automatica</i> , 2020 , 115, 108879	5.7	6
130	Blind identification of two-channel FIR systems: a frequency domain approach. <i>IFAC-PapersOnLine</i> , 2020 , 53, 914-920	0.7	
129	The Frisch scheme for EIV system identification: time and frequency domain formulations. <i>IFAC-PapersOnLine</i> , 2020 , 53, 907-913	0.7	
128	A note on the estimation of real- and complex-valued parameters in frequency domain maximum likelihood identification. <i>Automatica</i> , 2019 , 110, 108584	5.7	2
127	A user perspective on errors-in-variables methods in system identification. <i>Control Engineering Practice</i> , 2019 , 89, 56-69	3.9	8
126	Identification of two dimensional complex sinusoids in white noise: a state-space frequency approach. <i>IFAC-PapersOnLine</i> , 2018 , 51, 996-1001	0.7	
125	2D-frequency domain identification of complex sinusoids in the presence of additive noise. <i>IFAC-PapersOnLine</i> , 2018 , 51, 820-825	0.7	3
124	Errors-in-variables identification using maximum likelihood estimation in the frequency domain. <i>Automatica</i> , 2017 , 79, 131-143	5.7	33
123	Frequency domain identification of ARX models in the presence of additive input/output noise. <i>IFAC-PapersOnLine</i> , 2017 , 50, 6226-6231	0.7	2
122	Frequency domain identification of complex sinusoids in the presence of additive noise. <i>IFAC-PapersOnLine</i> , 2017 , 50, 6244-6250	0.7	2
121	Errors-in-variables system identification using structural equation modeling. <i>Automatica</i> , 2016 , 66, 218-230	5.7	19
120	Frequency domain EIV identification combining the Frisch scheme and Yule-Walker equations 2015 ,		7
119	Extended accuracy analysis of a covariance matching approach for identifying errors-in-variables systems. <i>Automatica</i> , 2014 , 50, 2597-2605	5.7	4
118	Frequency domain EIV identification: a Frisch Scheme approach. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 4631-4636		5
117	A unified framework for EIV identification methods in the presence of mutually correlated noises. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 4644-4649		
116	Frequency domain maximum likelihood identification of noisy input/output models. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 4625-4630		6
115	A unified framework for EIV identification methods when the measurement noises are mutually correlated. <i>Automatica</i> , 2014 , 50, 3216-3223	5.7	7

114	Can errors-in-variables systems be identified from closed-loop experiments?. <i>Automatica</i> , 2013 , 49, 681-684	5.7	11
113	Comparing some classes of bias-compensating least squares methods. <i>Automatica</i> , 2013 , 49, 840-845	5.7	15
112	On the accuracy of a covariance matching method for continuous-time errors-in-variables identification. <i>Automatica</i> , 2013 , 49, 2982-2993	5.7	6
111	Parameter estimation from wave propagation tests on a tube perforated by helical slots. <i>Mechanical Systems and Signal Processing</i> , 2013 , 40, 385-399	7.8	
110	System identification in a networked environment using second order statistical properties. <i>Automatica</i> , 2013 , 49, 652-659	5.7	5
109	Errors-in-variables identification using covariance matching and structural equation modeling 2013 ,		2
108	A generalised instrumental variable estimator for multivariable errors-in-variables identification problems. <i>International Journal of Control</i> , 2012 , 85, 287-303	1.5	8
107	System identification for the errors-in-variables problem. <i>Transactions of the Institute of Measurement and Control</i> , 2012 , 34, 780-792	1.8	40
106	Estimation of material functions using system identification techniques. <i>Control Engineering Practice</i> , 2012 , 20, 972-990	3.9	5
105	Model order determination based on rank properties of almost singular covariance matrices*. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 1653-1658		
104	On model order determination for errors-in-variables estimation*. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 1347-1352		5
103	On covariance matching for multiple input multiple output errors-in-variables systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 1371-1376		2
102	Accuracy Analysis of a Covariance Matching Method for Continuous-time Errors-in-variables System Identification*. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 1383-1388		1
101	How Accurate Can Instrumental Variable Models Become? 2012 , 3-25		2
100	A generalized instrumental variable estimation method for errors-in-variables identification problems. <i>Automatica</i> , 2011 , 47, 1656-1666	5.7	51
99	On the accuracy in errors-in-variables identification compared to prediction-error identification. <i>Automatica</i> , 2011 , 47, 2704-2712	5.7	11
98	On identification methods for direct data-driven controller tuning. <i>International Journal of Adaptive Control and Signal Processing</i> , 2011 , 25, 448-465	2.8	17
97	Approximative weighting for a covariance-matching approach for identifying errors-in-variables systems. <i>International Journal of Adaptive Control and Signal Processing</i> , 2011 , 25, 535-543	2.8	1

96	Optimal Excitation for Nonparametric Identification of Viscoelastic Materials. <i>IEEE Transactions on Control Systems Technology</i> , 2011 , 19, 238-244	4.8	3
95	Accuracy analysis of a covariance matching approach for identifying errors-in-variables systems. <i>Automatica</i> , 2011 , 47, 272-282	5.7	23
94	Covariance Matching for Continuous-Time Errors-in-Variables Problems. <i>IEEE Transactions on Automatic Control</i> , 2011 , 56, 1478-1483	5.9	8
93	Accuracy analysis of time domain maximum likelihood method and sample maximum likelihood method for errors-in-variables and output error identification. <i>Automatica</i> , 2010 , 46, 721-727	5.7	33
92	Errors-in-variables identification using a Generalized Instrumental Variable Estimation method 2010 ,		2
91	Continuous-time errors-in-variables system identification through covariance matching without input signal modeling 2009 ,		3
90	Separation of waves governed by the one-dimensional wave equation in stochastic systems approach. <i>Mechanical Systems and Signal Processing</i> , 2009 , 23, 823-844	7.8	2
89	Relations between Bias-Eliminating Least Squares, the Frisch scheme and Extended Compensated Least Squares methods for identifying errors-in-variables systems. <i>Automatica</i> , 2009 , 45, 277-282	5.7	23
88	A covariance matching approach for identifying errors-in-variables systems. <i>Automatica</i> , 2009 , 45, 2018-2031	5.7	30
87	Sampled Data Errors-in-Variables Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2009 , 42, 1157-1162		
86	Sampling approximations for continuous-time identification. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2009 , 42, 1145-1150		1
85	Identifying Errors-in-Variables Systems By Using A Covariance Matching Approach. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2009 , 42, 1551-1556		1
84	Estimation of Continuous-time Stochastic System Parameters 2008 , 31-66		5
83	Comparison of three Frisch methods for errors-in-variables identification. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2008 , 41, 414-419		3
82	Statistical Analysis of a Third-Order Cumulants Based Algorithm for Discrete-Time Errors-in-Variables Identification. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2008 , 41, 420-425		4
81	Accuracy Analysis of Time-domain Maximum Likelihood Method and Sample Maximum Likelihood Method for Errors-in-Variables Identification. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2008 , 41, 1372-1377		1
80	Feedforward Design for a Mechanical System with Marginally Stable Inverse. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2008 , 41, 2270-2275		
79	Extending the Frisch scheme for errors-in-variables identification to correlated output noise. <i>International Journal of Adaptive Control and Signal Processing</i> , 2008 , 22, 55-73	2.8	32

78	Optimal sensor locations for nonparametric identification of viscoelastic materials. <i>Automatica</i> , 2008 , 44, 28-38	5.7	14
77	A Mechanical Wave Diode: Using Feedforward Control for One-Way Transmission of Elastic Extensional Waves. <i>IEEE Transactions on Control Systems Technology</i> , 2007 , 15, 715-724	4.8	11
76	Identification of Continuous-Time ARX Models From Irregularly Sampled Data. <i>IEEE Transactions on Automatic Control</i> , 2007 , 52, 417-427	5.9	23
75	A Simplified Form of the Bias-Eliminating Least Squares Method for Errors-in-Variables Identification. <i>IEEE Transactions on Automatic Control</i> , 2007 , 52, 1754-1756	5.9	16
74	A Frisch scheme for correlated output noise errors-in-variables identification 2007 ,		1
73	Bayesian approaches for identification of the complex modulus of viscoelastic materials. <i>Automatica</i> , 2007 , 43, 1369-1376	5.7	5
72	Errors-in-variables methods in system identification. <i>Automatica</i> , 2007 , 43, 939-958	5.7	294
71	Accuracy analysis of bias-eliminating least squares estimates for errors-in-variables systems. <i>Automatica</i> , 2007 , 43, 1590-1596	5.7	25
70	Accuracy Analysis of the Frisch Scheme for Identifying Errors-in-Variables Systems. <i>IEEE Transactions on Automatic Control</i> , 2007 , 52, 985-997	5.9	20
69	An Overview of Important Practical Aspects of Continuous-Time ARMA System Identification. <i>Circuits, Systems, and Signal Processing</i> , 2006 , 25, 17-46	2.2	41
68	ERRORS-IN-VARIABLES METHODS IN SYSTEM IDENTIFICATION. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 1-19		5
67	USING CONTINUOUS-TIME MODELING FOR ERRORS-IN-VARIABLES IDENTIFICATION. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 428-433		10
66	NONPARAMETRIC IDENTIFICATION OF COMPLEX MODULUS USING A NON-EQUILIBRIUM SHPB PROCEDURE. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 1318-1323		1 ¹
65	A SEPARABLE NONLINEAR LEAST-SQUARES APPROACH FOR IDENTIFICATION OF LINEAR SYSTEMS WITH ERRORS IN VARIABLES. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 178-183		15
64	ACCURACY ANALYSIS OF BIAS-ELIMINATING LEAST SQUARES ESTIMATES FOR ERRORS-IN-VARIABLES IDENTIFICATION. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 190-195		4
63	ON COMPUTING THE CRAMER-RAO BOUND AND COVARIANCE MATRICES FOR PEM ESTIMATES IN LINEAR STATE SPACE MODELS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 600-605		17
62	On the estimation of complex modulus and Poisson's ratio using longitudinal wave experiments. <i>Mechanical Systems and Signal Processing</i> , 2006 , 20, 2080-2094	7.8	10
61	OPTIMAL SENSOR LOCATIONS FOR NONPARAMETRIC IDENTIFICATION OF VISCOELASTIC MATERIALS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2005 , 38, 686-691		1

60	IDENTIFICATION OF DYNAMIC ERRORS-IN-VARIABLES SYSTEMS WITH PERIODIC DATA. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2005 , 38, 809-814		9
59	Periodic signal analysis by maximum likelihood modeling of orbits of nonlinear ODEs. <i>Automatica</i> , 2005 , 41, 793-805	5.7	4
58	Convergence properties of bias-eliminating algorithms for errors-in-variables identification. <i>International Journal of Adaptive Control and Signal Processing</i> , 2005 , 19, 703-722	2.8	30
57	Reduced order models for a two-dimensional heat diffusion system. <i>International Journal of Control</i> , 2004 , 77, 1532-1548	1.5	2
56	Computationally efficient estimation of wave propagation functions from 1-D wave experiments on viscoelastic materials. <i>Automatica</i> , 2004 , 40, 713-727	5.7	4
55	Improved estimation performance using known linear constraints. <i>Automatica</i> , 2004 , 40, 1307-1318	5.7	17
54	Least Squares Harmonic Signal Analysis Using Periodic Orbits of ODEs. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2003 , 36, 1543-1548		2
53	Identification of dynamic errors-in-variables models: Approaches based on two-dimensional ARMA modeling of the data. <i>Automatica</i> , 2003 , 39, 929-935	5.7	19
52	Why are errors-in-variables problems often tricky? 2003 ,		5
51	Instrumental variable methods for system identification. <i>Circuits, Systems, and Signal Processing</i> , 2002 , 21, 1-9	2.2	60
50	Model validation and model structure determination. <i>Circuits, Systems, and Signal Processing</i> , 2002 , 21, 83-90	2.2	5
49	Perspectives on errors-in-variables estimation for dynamic systems. <i>Signal Processing</i> , 2002 , 82, 1139-1154	4.4	83
48	Identification of continuous-time AR processes from unevenly sampled data. <i>Automatica</i> , 2002 , 38, 709-718	5.18	57
47	On instrumental variable and total least squares approaches for identification of noisy systems. <i>International Journal of Control</i> , 2002 , 75, 381-389	1.5	42
46	BIAS AND VARIANCE OF THE PARAMETER ESTIMATES FOR A ONE DIMENSIONAL HEAT DIFFUSION SYSTEM. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2002 , 35, 259-264		
45	IDENTIFICATION OF DYNAMIC ERRORS-IN-VARIABLES MODEL USING A FREQUENCY DOMAIN FRISCH SCHEME. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2002 , 35, 361-366		3
44	System Identification Techniques for Estimating Material Functions from Wave Propagation Experiments. <i>Inverse Problems in Science and Engineering</i> , 2002 , 10, 413-439		8
43	Perspectives on Errors-In-Variables Estimation for Dynamic Systems 2002 , 271-280		2

42	Reduced order models for diffusion systems using singular perturbations. <i>Energy and Buildings</i> , 2001 , 33, 769-781	7	9
41	Reduced order models for diffusion systems. <i>International Journal of Control</i> , 2001 , 74, 1543-1557	1.5	8
40	Reduced Order Models for Diffusion Systems via Collocation Methods. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2000 , 33, 977-982		4
39	Identification Methods of Dynamic Systems in Presence of Input Noise. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2000 , 33, 199-204		7
38	The Cram�er-Rao lower bound for noisy input-output systems. <i>Signal Processing</i> , 2000 , 80, 2421-2447	4.4	25
37	Comments on Identification of closed-loop systems via least-squares method. <i>International Journal of Adaptive Control and Signal Processing</i> , 1999 , 13, 37-41	2.8	1
36	Common factor detection and estimation. <i>Automatica</i> , 1997 , 33, 985-989	5.7	16
35	Computationally and Statistically Efficient Common Factor Detection and Estimation with Application in System Identification. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 1996 , 29, 4279-4284		
34	Optimally Weighted MUSIC for Frequency Estimation. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1995 , 16, 811-827	1.5	5
33	An efficient linear method for ARMA spectral estimation. <i>International Journal of Control</i> , 1994 , 59, 337-356	3.5	13
32	Approximate maximum likelihood frequency estimation. <i>Automatica</i> , 1994 , 30, 131-145	5.7	15
31	Asymptotic statistical analysis of autoregressive frequency estimates. <i>Signal Processing</i> , 1994 , 39, 277-292	4.4	5
30	Comparative performance study of SVD-based and QRD-based high-order Yule-Walker methods for frequency estimation. <i>Circuits, Systems, and Signal Processing</i> , 1993 , 12, 105-117	2.2	1
29	On SVD-based and TLS-based high-order Yule-Walker methods of frequency estimation. <i>Signal Processing</i> , 1992 , 29, 309-317	4.4	9
28	Adaptive instrumental variable methods for frequency estimation. <i>International Journal of Adaptive Control and Signal Processing</i> , 1992 , 6, 441-469	2.8	3
27	On spectral and root forms of sinusoidal frequency estimators. <i>Signal Processing</i> , 1991 , 24, 93-103	4.4	11
26	Computing stochastic continuous-time models from ARMA models. <i>International Journal of Control</i> , 1991 , 53, 1311-1326	1.5	24
25	High-order Yule-Walker equations for estimating sinusoidal frequencies: The complete set of solutions. <i>Signal Processing</i> , 1990 , 20, 257-263	4.4	14

24	Investigation of the intersample variance in sampled-data control. <i>International Journal of Control</i> , 1989 , 50, 1587-1602	1.5	7
23	Inter-sample behaviour as measured by continuous-time quadratic criteria. <i>International Journal of Control</i> , 1989 , 49, 2077-2083	1.5	5
22	Approximate maximum-likelihood approach to ARMA spectral estimation. <i>International Journal of Control</i> , 1987 , 45, 1281-1310	1.5	15
21	Instrumental Variable Methods for ARMA Models. <i>Control and Dynamic Systems</i> , 1987 , 25, 79-150		3
20	Model-structure selection by cross-validation. <i>International Journal of Control</i> , 1986 , 43, 1841-1878	1.5	88
19	An investigation of the intersample variance for linear stochastic control 1986 ,		1
18	Least-squares, Yule-Walker, and overdetermined Yule-Walker estimation of AR parameters: a Monte Carlo analysis of finite-sample properties. <i>International Journal of Control</i> , 1986 , 43, 13-27	1.5	12
17	Optimization with respect to covariance sequence parameters. <i>Automatica</i> , 1985 , 21, 671-675	5.7	10
16	An approximate maximum likelihood approach to ARMA spectral estimation 1985 ,		7
15	Asymptotic accuracy of the Aitken-Markov estimator. <i>International Journal of Control</i> , 1985 , 41, 1175-1188		
14	On the convergence of pseudo-linear regression algorithms. <i>International Journal of Control</i> , 1985 , 41, 1429-1444	1.5	11
13	On the asymptotic accuracy of pseudo-linear regression algorithms. <i>International Journal of Control</i> , 1984 , 39, 115-126	1.5	23
12	Uniqueness of estimated k-step prediction models of ARMA processes. <i>Systems and Control Letters</i> , 1984 , 4, 325-331	2.4	10
11	Optimal instrumental-variable methods for identification of multivariable linear systems. <i>Automatica</i> , 1983 , 19, 425-429	5.7	15
10	On the parsimony principle. <i>International Journal of Control</i> , 1982 , 36, 409-418	1.5	23
9	Instrumental-variable methods for identification of Hammerstein systems. <i>International Journal of Control</i> , 1982 , 35, 459-476	1.5	120
8	Bias correction in least-squares identification. <i>International Journal of Control</i> , 1982 , 35, 449-457	1.5	84
7	Eigenvalue location of certain matrices arising in convergence analysis problems. <i>Automatica</i> , 1982 , 18, 487-489	5.7	8

6	Uniqueness of prediction error estimates of multivariable moving average models. <i>Automatica</i> , 1982 , 18, 617-620	5.7	12
5	Identification of stochastic linear systems in presence of input noise. <i>Automatica</i> , 1981 , 17, 713-725	5.7	184
4	Analysis of an output error identification algorithm. <i>Automatica</i> , 1981 , 17, 861-863	5.7	16
3	Asymptotic behaviour of some bootstrap estimators. <i>International Journal of Control</i> , 1981 , 33, 433-454	1.5	22
2	On criterion selection and noise model parametrization for prediction-error identification methods. <i>International Journal of Control</i> , 1981 , 34, 801-811	1.5	2
1	Convergence properties of the generalised least squares identification method. <i>Automatica</i> , 1974 , 10, 617-626	5.7	90