

Shunyi Zhao

List of Publications by Year in descending order

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77
docs citations

77
times ranked

884
citing authors

#	ARTICLE	IF	CITATIONS
1	Fast Kalman-Like Optimal Unbiased FIR Filtering With Applications. IEEE Transactions on Signal Processing, 2016, 64, 2284-2297.	5.3	124
2	H _∞ Control for Discrete-Time Markov Jump Systems With Uncertain Transition Probabilities. IEEE Transactions on Automatic Control, 2013, 58, 1566-1572.	5.7	104
3	Fusion Kalman/UFIR Filter for State Estimation With Uncertain Parameters and Noise Statistics. IEEE Transactions on Industrial Electronics, 2017, 64, 3075-3083.	7.9	83
4	Minimum variance unbiased FIR filter for discrete time-variant systems. Automatica, 2015, 53, 355-361.	5.0	75
5	Comparing Robustness of the Kalman, H_{∞} , and UFIR Filters. IEEE Transactions on Signal Processing, 2018, 66, 3447-3458.	5.3	65
6	Trial-and-error or avoiding a guess? Initialization of the Kalman filter. Automatica, 2020, 121, 109184.	5.0	59
7	Fast Computation of Discrete Optimal FIR Estimates in White Gaussian Noise. IEEE Signal Processing Letters, 2015, 22, 718-722.	3.6	53
8	Linear Optimal Unbiased Filter for Time-Variant Systems Without Apriori Information on Initial Conditions. IEEE Transactions on Automatic Control, 2017, 62, 882-887.	5.7	47
9	Distributed plant-wide process monitoring based on PCA with minimal redundancy maximal relevance. Chemometrics and Intelligent Laboratory Systems, 2017, 169, 53-63.	3.5	46
10	Multiple-Model State Estimation Based on Variational Bayesian Inference. IEEE Transactions on Automatic Control, 2019, 64, 1679-1685.	5.7	40
11	An Improved Iterative FIR State Estimator and Its Applications. IEEE Transactions on Industrial Informatics, 2020, 16, 1003-1012.	11.3	40
12	Fault Detection and Diagnosis of Multiple-Model Systems With Mismodeled Transition Probabilities. IEEE Transactions on Industrial Electronics, 2015, 62, 5063-5071.	7.9	39
13	Self-Tuning Unbiased Finite Impulse Response Filtering Algorithm for Processes With Unknown Measurement Noise Covariance. IEEE Transactions on Control Systems Technology, 2021, 29, 1372-1379.	5.2	37
14	Probabilistic Monitoring of Correlated Sensors for Nonlinear Processes in State Space. IEEE Transactions on Industrial Electronics, 2020, 67, 2294-2303.	7.9	34
15	Online Probabilistic Estimation of Sensor Faulty Signal in Industrial Processes and Its Applications. IEEE Transactions on Industrial Electronics, 2021, 68, 8853-8862.	7.9	34
16	Multipass Optimal FIR Filtering for Processes With Unknown Initial States and Temporary Mismatches. IEEE Transactions on Industrial Informatics, 2021, 17, 5360-5368.	11.3	33
17	Ultimate iterative UFIR filtering algorithm. Measurement: Journal of the International Measurement Confederation, 2016, 92, 236-242.	5.0	32
18	Localization of Indoor Mobile Robot Using Minimum Variance Unbiased FIR Filter. IEEE Transactions on Automation Science and Engineering, 2018, 15, 410-419.	5.2	32

#	ARTICLE	IF	CITATIONS
19	Discrete Time q -Lag Maximum Likelihood FIR Smoothing and Iterative Recursive Algorithm. IEEE Transactions on Signal Processing, 2021, 69, 6342-6354.	5.3	32
20	Adaptive-Horizon Iterative UFIR Filtering Algorithm With Applications. IEEE Transactions on Industrial Electronics, 2018, 65, 6393-6402.	7.9	30
21	Kalman and UFIR state estimation with coloured measurement noise using backward Euler method. IET Signal Processing, 2020, 14, 64-71.	1.5	30
22	Real-Time Optimal State Estimation of Multi-DOF Industrial Systems Using FIR Filtering. IEEE Transactions on Industrial Informatics, 2017, 13, 967-975.	11.3	28
23	Unbiased FIR Filtering for Time-Stamped Discretely Delayed and Missing Data. IEEE Transactions on Automatic Control, 2020, 65, 2155-2162.	5.7	27
24	Bayesian Inference for State-Space Models With Student- t Mixture Distributions. IEEE Transactions on Cybernetics, 2023, 53, 4435-4445.	9.5	27
25	General Unbiased FIR Filter With Applications to GPS-Based Steering of Oscillator Frequency. IEEE Transactions on Control Systems Technology, 2017, 25, 1141-1148.	5.2	26
26	Optimal and Unbiased Filtering With Colored Process Noise Using State Differencing. IEEE Signal Processing Letters, 2019, 26, 548-551.	3.6	26
27	Probabilistic Monitoring of Sensors in State-Space With Variational Bayesian Inference. IEEE Transactions on Industrial Electronics, 2019, 66, 2154-2163.	7.9	25
28	Sensor fault detection and diagnosis in the presence of outliers. Neurocomputing, 2019, 349, 156-163.	5.9	25
29	Bayesian State Estimation for Markovian Jump Systems: Employing Recursive Steps and Pseudocodes. IEEE Systems, Man, and Cybernetics Magazine, 2019, 5, 27-36.	1.4	24
30	H_∞ filtering for discrete-time Markov jump systems with unknown transition probabilities. International Journal of Adaptive Control and Signal Processing, 2014, 28, 138-148.	4.1	23
31	Iterative Residual Generator for Fault Detection With Linear Time-Invariant State-Space Models. IEEE Transactions on Automatic Control, 2017, 62, 5422-5428.	5.7	22
32	Bayesian state estimation on finite horizons: The case of linear state-space model. Automatica, 2017, 85, 91-99.	5.0	22
33	Detection and Diagnosis of Multiple Faults With Uncertain Modeling Parameters. IEEE Transactions on Control Systems Technology, 2017, 25, 1873-1881.	5.2	21
34	A New Unbiased FIR Filter With Improved Robustness Based on Frobenius Norm With Exponential Weight. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 521-525.	3.0	21
35	Unified Maximum Likelihood Form for Bias Constrained FIR Filters. IEEE Signal Processing Letters, 2016, 23, 1848-1852.	3.6	20
36	Robust FIR State Estimation of Dynamic Processes Corrupted by Outliers. IEEE Transactions on Industrial Informatics, 2019, 15, 139-147.	11.3	18

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37	Frequency-Efficient Receding Horizon H_{∞} FIR Filtering in Discrete-Time State-Space. IEEE Transactions on Circuits and Systems I: Regular Papers, 2017, 64, 2945-2953.	5.4	16
38	Continuous-Time Deadbeat H_2 FIR Filter. IEEE Transactions on Circuits and Systems II: Express Briefs, 2017, 64, 987-991.	3.0	16
39	Iterative Maximum Likelihood FIR Estimation of Dynamic Systems With Improved Robustness. IEEE/ASME Transactions on Mechatronics, 2018, 23, 1467-1476.	5.8	16
40	Bias-Constrained Optimal Fusion Filtering for Decentralized WSN With Correlated Noise Sources. IEEE Transactions on Signal and Information Processing Over Networks, 2018, 4, 727-735.	2.8	15
41	Unbiased, optimal, and in-between: the trade-off in discrete finite impulse response filtering. IET Signal Processing, 2016, 10, 325-334.	1.5	14
42	Identification of time-delay Markov jump autoregressive exogenous systems with expectation-maximization algorithm. International Journal of Adaptive Control and Signal Processing, 2017, 31, 1920-1933.	4.1	14
43	Online identification of time-delay jump Markov autoregressive exogenous systems with recursive expectation-maximization algorithm. International Journal of Adaptive Control and Signal Processing, 2020, 34, 407-426.	4.1	14
44	Minimum Weighted Frobenius Norm Discrete-Time FIR Filter With Embedded Unbiasedness. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 1284-1288.	3.0	13
45	Sensor Fault Estimation in a Probabilistic Framework for Industrial Processes and its Applications. IEEE Transactions on Industrial Informatics, 2022, 18, 387-396.	11.3	13
46	On the Iterative Computation of Error Matrix in Unbiased FIR Filtering. IEEE Signal Processing Letters, 2017, 24, 555-558.	3.6	12
47	Distributed Student's t filtering algorithm for heavy-tailed noises. International Journal of Adaptive Control and Signal Processing, 2018, 32, 875-890.	4.1	12
48	Frobenius Norm-Based Unbiased Finite Impulse Response Fusion Filtering for Wireless Sensor Networks. IEEE Transactions on Industrial Electronics, 2022, 69, 1867-1876.	7.9	12
49	Optimal FIR Filter for Discrete-Time LTV Systems and Fast Iterative Algorithm. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 1527-1531.	3.0	11
50	Fast Kalman-like optimal FIR filter for time-variant systems with improved robustness. ISA Transactions, 2018, 80, 160-168.	5.7	10
51	Robust filter design for asymmetric measurement noise using variational Bayesian inference. IET Control Theory and Applications, 2019, 13, 1656-1664.	2.1	9
52	Intelligent State Estimation for Continuous Fermenters Using Variational Bayesian Learning. IEEE Transactions on Industrial Informatics, 2021, 17, 8429-8437.	11.3	9
53	On the H_2 and H_{∞} Performances of the Continuous-Time Deadbeat H_{∞} Filter. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 1798-1802.	3.0	8
54	Fusion Kalman and Weighted UFIR State Estimator With Improved Accuracy. IEEE Transactions on Industrial Electronics, 2020, 67, 10713-10722.	7.9	8

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55	Effect of embedded unbiasedness on discrete-time optimal FIR filtering estimates. <i>Eurasip Journal on Advances in Signal Processing</i> , 2015, 2015, .	1.7	7
56	On initialization of the Kalman filter. , 2017, , .		7
57	Feature Extraction of Constrained Dynamic Latent Variables. <i>IEEE Transactions on Industrial Informatics</i> , 2019, 15, 5637-5645.	11.3	7
58	State estimation for jump markov nonlinear systems of unknown measurement data covariance. <i>Journal of the Franklin Institute</i> , 2021, 358, 1673-1691.	3.4	7
59	Risk-sensitive filtering for nonlinear Markov jump systems on the basis of particle approximation. <i>International Journal of Adaptive Control and Signal Processing</i> , 2012, 26, 158-170.	4.1	6
60	A Fusion Kalman Filter and UFIR Estimator Using the Influence Function Method. <i>IEEE/CAA Journal of Automatica Sinica</i> , 2022, 9, 709-718.	13.1	6
61	Fast bias-constrained optimal FIR filtering for time-invariant state space models. <i>International Journal of Adaptive Control and Signal Processing</i> , 2017, 31, 1061-1076.	4.1	4
62	Distributed data-driven observer for linear time invariant systems. <i>International Journal of Adaptive Control and Signal Processing</i> , 2020, 34, 503-519.	4.1	4
63	Multitask Maximum Likelihood Identification for ARX Model With Multisensor. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022, 71, 1-10.	4.7	4
64	Recursive Bayesian estimation for Markov jump linear systems with unknown mode-dependent state delays. <i>IET Signal Processing</i> , 2013, 7, 911-919.	1.5	3
65	A Revisit to Strictly Passive FIR Filtering. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2018, 65, 516-520.	3.0	3
66	Hankel-Norm Approach to Robust FIR Estimation of Dynamic Systems Under External Disturbances. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018, 23, 1973-1980.	5.8	2
67	Joint state estimation for nonlinear state-space model with unknown time-variant noise statistics. <i>International Journal of Adaptive Control and Signal Processing</i> , 2021, 35, 498-512.	4.1	2
68	Backward optimal FIR filtering and recursive forms for discrete LTV processes. <i>Signal Processing</i> , 2021, 180, 107857.	3.7	2
69	Bayesian estimation for nonlinear stochastic hybrid systems with state dependent transitions. <i>Journal of Systems Engineering and Electronics</i> , 2012, 23, 242-249.	2.2	1
70	Further Results on Induced $\ L_\infty$ RH FIR Filtering. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2018, 65, 1124-1128.	3.0	1
71	Online state and inputs identification for stochastic systems using recursive expectation-maximization algorithm. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2021, 217, 104403.	3.5	1
72	Algorithms Design for Tracking Moving Objects with Colored Process Noise. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
73	Backward Iterations for OFIR Filtering in Discrete-Time State-Space. , 2021, , .		1
74	Robust q -LAG Unbiased FIR Smoother for LTV Systems and Recursive Forms. IEEE Signal Processing Letters, 2022, 29, 379-383.	3.6	0
75	Underwater Sludge Detection System Based on Multi-Data Fusion. , 2021, , .		0
76	Iterative Maximum Likelihood FIR Filter for State-Space Models with Time-Stamped Delayed and Missing Data. Circuits, Systems, and Signal Processing, 0, , .	2.0	0
77	Improved state estimator for linear-Gaussian systems subject to initialization errors. Chemometrics and Intelligent Laboratory Systems, 2022, , 104608.	3.5	0