

Ondrej Straka

List of Publications by Year in descending order

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94
papers

1,055
citations

686830

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94
all docs

94
docs citations

94
times ranked

598
citing authors

#	ARTICLE	IF	CITATIONS
1	Measurement Difference Method: A Universal Tool for Noise Identification. IEEE Transactions on Automatic Control, 2023, 68, 1792-1799.	3.6	4
2	Distributed design for active fault diagnosis. International Journal of Systems Science, 2022, 53, 562-574.	3.7	6
3	Covariance Intersection fusion with element-wise partial knowledge of correlation. Automatica, 2022, 139, 110168.	3.0	6
4	Point-Mass Filter with Decomposition of Transient Density. , 2022, , .		3
5	Point-Mass Filter: Density Specific Grid Design and Implementation. Lecture Notes in Control and Information Sciences - Proceedings, 2022, , 1093-1115.	0.1	2
6	Improved Calibration of Numerical Integration Error in Sigma-Point Filters. IEEE Transactions on Automatic Control, 2021, 66, 1286-1292.	3.6	3
7	Identifiability of Unique Elements of Noise Covariances in State-Space Models. IFAC-PapersOnLine, 2021, 54, 316-321.	0.5	1
8	Learning and Exploiting Partial Knowledge in Distributed Estimation. , 2021, , .		0
9	Lower Bounds In Estimation Fusion With Partial Knowledge of Correlations. , 2021, , .		3
10	Importance Gauss-Hermite Gaussian Filter for Models with Non-Additive Non-Gaussian Noises. , 2021, , .		3
11	Covariance Estimation and Gaussianity Assessment for State and Measurement Noise. Journal of Guidance, Control, and Dynamics, 2020, 43, 132-139.	1.6	10
12	Conditional Density Driven Grid Design in Point-Mass Filter. , 2020, , .		3
13	Density Difference Grid Design in a Point-Mass Filter. Energies, 2020, 13, 4080.	1.6	4
14	Distributed Active Faults Diagnosis for Systems with Conditionally Dependent Faults. IFAC-PapersOnLine, 2020, 53, 13613-13618.	0.5	3
15	Time-to-go function of double-integrator system with asymmetrical constraints*. , 2020, , .		0
16	Design of Confidence Sets for Estimation with Approximate Piecewise Linear Constraint. , 2020, , .		4
17	Estimation of Parameters of Gaussian Sum Distributed Noises in State-Space Models. IFAC-PapersOnLine, 2020, 53, 2415-2422.	0.5	1
18	Inverse Covariance Intersection Fusion of Multiple Estimates. , 2020, , .		6

#	ARTICLE	IF	CITATIONS
19	Evaluation of Confidence Sets for Estimation with Piecewise Linear Constraint. , 2020, , .		1
20	Design of Raoâ€™Blackwellized Point-Mass Filter With Application in Terrain Aided Navigation. IEEE Transactions on Aerospace and Electronic Systems, 2019, 55, 251-272.	2.6	43
21	Calculation of Support Function for Fusion Under Partial Knowledge. , 2019, , .		3
22	Decentralised estimation with correlation limited by optimal processing of independent data. Automatica, 2019, 99, 132-137.	3.0	7
23	Rectification of Partitioned Covariance Intersection. , 2019, , .		6
24	Design of Raoâ€™Blackwellized Point-Mass Smoother for Conditionally Linear and Gaussian Models. IEEE Transactions on Signal Processing, 2019, 67, 6053-6066.	3.2	6
25	Non-centralized Active Fault Diagnosis for Stochastic Systems. , 2019, , .		4
26	Design of measurement difference autocovariance method for estimation of process and measurement noise covariances. Automatica, 2018, 90, 16-24.	3.0	27
27	Stochastic Integration Filter with Improved State Estimate Mean-Square Error Computation. Lecture Notes in Electrical Engineering, 2018, , 423-439.	0.3	1
28	Noise Moment and Parameter Estimation of State-Space Model. IFAC-PapersOnLine, 2018, 51, 891-896.	0.5	3
29	Comparison of Fusions Under Unknown and Partially Known Correlations. IFAC-PapersOnLine, 2018, 51, 295-300.	0.5	10
30	Multiple-Model Active Fault Diagnosis with Deferred Decisions. , 2018, , .		0
31	Entropy-Based Consistency Monitoring for Stochastic Integration Filter. , 2018, , .		1
32	Stochastic Integration Filter: Theoretical and Implementation Aspects. , 2018, , .		1
33	Gaussian Process Quadrature Moment Transform. IEEE Transactions on Automatic Control, 2018, 63, 2844-2854.	3.6	8
34	Directional splitting of Gaussian density in nonâ€™linear random variable transformation. IET Signal Processing, 2018, 12, 1073-1081.	0.9	2
35	Covariance Intersection in Track-to-Track Fusion: Comparison of Fusion Configurations. IEEE Transactions on Industrial Informatics, 2018, 14, 1127-1136.	7.2	20
36	Analysis of Partial Knowledge of Correlations in an Estimation Fusion Problem. , 2018, , .		7

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37	Fusion of Multiple Estimates by Covariance Intersection: Why and How it Is Suboptimal. International Journal of Applied Mathematics and Computer Science, 2018, 28, 521-530.	1.5	13
38	Reconstruction of Cross-Correlations with Constant Number of Deterministic Samples. , 2018, , .		10
39	On Autocovariance Least-Squares Method for Noise Covariance Matrices Estimation. IEEE Transactions on Automatic Control, 2017, 62, 967-972.	3.6	31
40	Noise covariance matrices in state space models: A survey and comparison of estimation methodsâ€”Part I. International Journal of Adaptive Control and Signal Processing, 2017, 31, 1505-1543.	2.3	98
41	Constrained time-optimal control of PMSM with continuous control domain. , 2017, , .		3
42	Student-t process quadratures for filtering of non-linear systems with heavy-tailed noise. , 2017, , .		4
43	Stochastic integration Student's-t filter. , 2017, , .		12
44	Efficient MPC for permanent magnet synchronous motor. , 2017, , .		6
45	On weak points of the ellipsoidal intersection fusion. , 2017, , .		8
46	Noise covariance matrix estimation in navigation and tracking: Impact of linearisation error. , 2017, , .		1
47	A geometrical perspective on fusion under unknown correlations based on Minkowski sums. , 2017, , .		18
48	Measurement difference autocovariance method for noise covariance matrices estimation. , 2016, , .		9
49	Directional Splitting for Structure Adaptation of Bayesian Filters. , 2016, , .		3
50	Covariance intersection in track-to-track fusion with memory. , 2016, , .		6
51	Efficient adaptation of design parameters of derivative-free filters. Automation and Remote Control, 2016, 77, 261-276.	0.4	7
52	Estimation of Noise Covariance Matrices for Linear Systems with Nonlinear Measurements**This work was supported by the Czech Science Foundation, project no. GACR P103-13-07058J, and by the project EXLIZ CZ.1.07/2.3.00/30.0013, which is co-financed by the European Social Fund and the state budget of the Czech Republic...IFAC-PapersOnLine, 2015, 48, 1130-1135.	0.5	3
53	A new practically oriented generation of nonlinear filtering toolbox**This publication was supported by the project LO1506 of the Czech Ministry of Education, Youth and Sports and by the Czech Science Foundation, project GA15-12068S.. IFAC-PapersOnLine, 2015, 48, 1070-1075.	0.5	2
54	Identification of State and Measurement Noise Covariance Matrices using Nonlinear Estimation Framework. Journal of Physics: Conference Series, 2015, 659, 012057.	0.3	1

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55	Performance evaluation of iterated extended Kalman filter with variable step-length. Journal of Physics: Conference Series, 2015, 659, 012022.	0.3	30
56	12th European Workshop on Advanced Control and Diagnosis (ACD 2015). Journal of Physics: Conference Series, 2015, 659, 011001.	0.3	0
57	Structure adaptation of nonlinear filters based on non-Gaussianity measures. , 2015, , .		6
58	Random-point-based filters: analysis and comparison in target tracking. IEEE Transactions on Aerospace and Electronic Systems, 2015, 51, 1403-1421.	2.6	72
59	Comparison of stochastic integration filter with the Unscented Kalman filter for maneuvering targets. , 2014, , .		2
60	Performance diagnosis of local filters in state estimation of nonlinear systems. Journal of Physics: Conference Series, 2014, 570, 012004.	0.3	0
61	Self-assessment of local filters by non-Gaussianity measures. , 2014, , .		4
62	Unscented Kalman filter with advanced adaptation of scaling parameter. Automatica, 2014, 50, 2657-2664.	3.0	40
63	Design of Pure Propagation Unscented Kalman Filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5933-5938.	0.4	5
64	Nonlinear Estimation Software Framework in Optimal and Adaptive Control Problems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5485-5490.	0.4	3
65	Sigma-Point Set Rotation in Unscented Kalman Filter: Analysis and Adaptation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5951-5956.	0.4	2
66	Confidence regions for multi-sensor state estimation under faulty measurements. , 2013, , .		1
67	Stochastic Integration Filter. IEEE Transactions on Automatic Control, 2013, 58, 1561-1566.	3.6	88
68	Nonlinear estimation framework: A versatile tool for state estimation. , 2013, , .		2
69	Aspects and comparison of matrix decompositions in unscented Kalman filter. , 2013, , .		14
70	Scaling parameter in unscented transform: Analysis and specification. , 2012, , .		18
71	Unscented Kalman Filter with Controlled Adaptation*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 906-911.	0.4	5
72	Unscented Kalman Filter: Aspects and Adaptive Setting of Scaling Parameter. IEEE Transactions on Automatic Control, 2012, 57, 2411-2416.	3.6	99

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73	Truncation nonlinear filters for state estimation with nonlinear inequality constraints. Automatica, 2012, 48, 273-286.	3.0	58
74	Measurement-to-track assignment methods in target tracking. , 2011, , .		1
75	An Efficient Constrained Gaussian Particle Filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 11973-11978.	0.4	0
76	The Development of a Randomised Unscented Kalman Filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 8-13.	0.4	14
77	Pruning and merging strategies in receding horizon bicriterial dual controller with multiple linearization. , 2011, , .		1
78	Truncated unscented particle filter. , 2011, , .		13
79	Multiple-model filtering with multiple constraints. , 2010, , .		3
80	Adaptive choice of scaling parameter in derivative-free local filters. , 2010, , .		13
81	Nonlinear estimation framework in target tracking. , 2010, , .		12
82	Multitarget tracking performance analysis using the non-credibility index in the Nonlinear Estimation Framework (NEF) toolbox. , 2010, , .		12
83	A software framework and tool for nonlinear state estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 510-515.	0.4	7
84	Methods for Estimating State and Measurement Noise Covariance Matrices: Aspects and Comparison. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 372-377.	0.4	28
85	A Survey of Sample Size Adaptation Techniques for Particle Filters. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1358-1363.	0.4	12
86	Functional sampling density design for particle filters. Signal Processing, 2008, 88, 2784-2789.	2.1	10
87	Adaptive particle filter with fixed empirical density quality. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 6484-6489.	0.4	5
88	Sampling Densities of Particle Filter: A Survey and Comparison. Proceedings of the American Control Conference, 2007, , .	0.0	12
89	USING THE BHATTACHARYYA DISTANCE IN FUNCTIONAL SAMPLING DENSITY OF PARTICLE FILTER. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 1006-1011.	0.4	1
90	Sample Size Adaptation for Particle Filters. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 437-442.	0.4	2

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91	Sampling density design for particle filters. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 175-180.	0.4	5
92	NONLINEAR ESTIMATION BY PARTICLE FILTERS AND CRAMÉR-RAO BOUND. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 79-84.	0.4	8
93	Setting Sample Size in Particle Filters Using Cramer-Rao Bound. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 681-686.	0.4	0
94	Duality Between Point-Mass and Simulation Approaches to State Estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 113-118.	0.4	0