

Robert PichÃ©

List of Publications by Year in descending order

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109
papers

2,490
citations

361413

20
h-index

315739

38
g-index

113
all docs

113
docs citations

113
times ranked

2339
citing authors

#	ARTICLE	IF	CITATIONS
1	A Survey of Selected Indoor Positioning Methods for Smartphones. IEEE Communications Surveys and Tutorials, 2017, 19, 1347-1370.	39.4	382
2	A comparative survey of WLAN location fingerprinting methods. , 2009, , .		366
3	SO-MI: A surrogate model algorithm for computationally expensive nonlinear mixed-integer black-box global optimization problems. Computers and Operations Research, 2013, 40, 1383-1400.	4.0	147
4	Recursive outlier-robust filtering and smoothing for nonlinear systems using the multivariate student-t distribution. , 2012, , .		93
5	Robust Inference for State-Space Models with Skewed Measurement Noise. IEEE Signal Processing Letters, 2015, 22, 1898-1902.	3.6	93
6	Mixture surrogate models based on Dempster-Shafer theory for global optimization problems. Journal of Global Optimization, 2011, 51, 79-104.	1.8	82
7	Rank based fingerprinting algorithm for indoor positioning. , 2011, , .		79
8	Particle filter and smoother for indoor localization. , 2013, , .		62
9	Device self-calibration in location systems using signal strength histograms. Journal of Location Based Services, 2013, 7, 165-181.	1.9	52
10	SO-I: a surrogate model algorithm for expensive nonlinear integer programming problems including global optimization applications. Journal of Global Optimization, 2014, 59, 865-889.	1.8	44
11	Received signal strength models for WLAN and BLE-based indoor positioning in multi-floor buildings. , 2015, , .		41
12	Robust Extended Kalman Filtering in Hybrid Positioning Applications. , 2007, , .		40
13	Gaussian filtering and variational approximations for Bayesian smoothing in continuous-discrete stochastic dynamic systems. Signal Processing, 2015, 111, 124-136.	3.7	36
14	Nanosatellite attitude estimation using Kalman-type filters with non-Gaussian noise. Aerospace Science and Technology, 2019, 92, 66-76.	4.8	36
15	UWB Positioning with Generalized Gaussian Mixture Filters. IEEE Transactions on Mobile Computing, 2014, 13, 2406-2414.	5.8	35
16	Skew- t Filter and Smoother With Improved Covariance Matrix Approximation. IEEE Transactions on Signal Processing, 2018, 66, 5618-5633.	5.3	34
17	On Computational Complexity Reduction Methods for Kalman Filter Extensions. IEEE Aerospace and Electronic Systems Magazine, 2019, 34, 2-19.	1.3	33
18	Statistical path loss parameter estimation and positioning using RSS measurements in indoor wireless networks. , 2012, , .		32

#	ARTICLE	IF	CITATIONS
19	Variable step size time integration methods for transient eddy current problems. IEEE Transactions on Magnetics, 1998, 34, 3319-3322.	2.1	30
20	Prediction of rotating stall within an impeller of a centrifugal pump based on spectral analysis of pressure and velocity data. Journal of Physics: Conference Series, 2006, 52, 36-45.	0.4	28
21	Indoor positioning using WLAN coverage area estimates. , 2010, , .		28
22	Autonomous Prediction of GPS and GLONASS Satellite Orbits. Navigation, Journal of the Institute of Navigation, 2012, 59, 119-134.	2.8	28
23	Fingerprint Kalman Filter in indoor positioning applications. , 2009, , .		26
24	Mobile Tracking in Mixed Line-of-Sight/Non-Line-of-Sight Conditions: Algorithm and Theoretical Lower Bound. Wireless Personal Communications, 2012, 65, 753-771.	2.7	25
25	Online tests of Kalman filter consistency. International Journal of Adaptive Control and Signal Processing, 2016, 30, 115-124.	4.1	25
26	A Two Regime Orifice Flow Formula for Numerical Simulation. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 1999, 121, 721-724.	1.6	24
27	Device signal strength self-calibration using histograms. , 2012, , .		24
28	A NLOS-robust TOA positioning filter based on a skew-t measurement noise model. , 2015, , .		24
29	Kullback-Leibler divergence approach to partitioned update Kalman filter. Signal Processing, 2017, 130, 289-298.	3.7	24
30	A Survey on Wireless Transmitter Localization Using Signal Strength Measurements. Wireless Communications and Mobile Computing, 2017, 2017, 1-12.	1.2	23
31	Nonnegative color spectrum analysis filters from principal component analysis characteristic spectra. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2002, 19, 1946.	1.5	22
32	An L-stable Rosenbrock method for step-by-step time integration in structural dynamics. Computer Methods in Applied Mechanics and Engineering, 1995, 126, 343-354.	6.6	20
33	Continuous Analysis of Running Mechanics by Means of an Integrated INS/GPS Device. Sensors, 2019, 19, 1480.	3.8	19
34	Relative Importance of Binocular Disparity and Motion Parallax for Depth Estimation: A Computer Vision Approach. Remote Sensing, 2019, 11, 1990.	4.0	18
35	Statistical Trilateration With Skew-t Distributed Errors in LTE Networks. IEEE Transactions on Wireless Communications, 2016, 15, 7114-7127.	9.2	17
36	Indirect Estimation of Vertical Ground Reaction Force from a Body-Mounted INS/GPS Using Machine Learning. Sensors, 2021, 21, 1553.	3.8	17

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37	Positioning with coverage area estimates generated from location fingerprints. , 2010, , .		16
38	An Introduction to Twisted Particle Filters and Parameter Estimation in Non-Linear State-Space Models. IEEE Transactions on Signal Processing, 2016, 64, 4875-4890.	5.3	16
39	Adaptive mobile tracking in unknown non-line-of-sight conditions with application to digital TV networks. Eurasip Journal on Advances in Signal Processing, 2014, 2014, .	1.7	15
40	Quasi stage order conditions for SDIRK methods. Applied Numerical Mathematics, 2002, 42, 61-75.	2.1	14
41	On convergence and accuracy of state-space approximations of squared exponential covariance functions. , 2014, , .		14
42	Forecasting the Diffusion of Innovation: A Stochastic Bass Model With Log-Normal and Mean-Reverting Error Process. IEEE Transactions on Engineering Management, 2011, 58, 228-249.	3.5	13
43	Stability of Followerâ€™Force Rods with Weight. Journal of Engineering Mechanics - ASCE, 1984, 110, 367-379.	2.9	12
44	RECURRENCE QUANTIFICATION ANALYSIS OF ELECTROCHEMICAL NOISE DATA DURING PIT DEVELOPMENT. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 3725-3728.	1.7	12
45	Uninterrupted portable car navigation system using GPS, map and inertial sensors data. , 2009, , .		12
46	Statistical path loss parameter estimation and positioning using RSS measurements. , 2012, , .		12
47	Comprehensive survey of similarity measures for ranked based location fingerprinting algorithm. , 2017, , .		12
48	Gaussian mixture models for signal mapping and positioning. Signal Processing, 2020, 168, 107330.	3.7	12
49	Use of distributed computing in derivative pricing. International Journal of Electronic Finance, 2009, 3, 270.	0.2	11
50	Binomial Gaussian mixture filter. Eurasip Journal on Advances in Signal Processing, 2015, 2015, .	1.7	11
51	Damped Posterior Linearization Filter. IEEE Signal Processing Letters, 2018, 25, 536-540.	3.6	10
52	An empirical solar radiation pressure model for autonomous GNSS orbit prediction. , 2012, , .		9
53	A monocular camera gyroscope. Gyroscopy and Navigation, 2012, 3, 124-131.	1.3	9
54	Evaluating the consistency of estimation. , 2014, , .		9

#	ARTICLE	IF	CITATIONS
55	Kalman filter with a linear state model for PDR+WLAN positioning and its application to assisting a particle filter. <i>Eurasip Journal on Advances in Signal Processing</i> , 2015, 2015, .	1.7	9
56	Gaussian Scale Mixture Models for Robust Linear Multivariate Regression with Missing Data. <i>Communications in Statistics Part B: Simulation and Computation</i> , 2016, 45, 791-813.	1.2	9
57	Outlier-robust estimation of GPS satellite clock offsets. , 2012, , .		7
58	Motion model for positioning with graph-based indoor map. , 2014, , .		7
59	Comments on "An improved approximation for settling time of second-order linear systems". <i>IEEE Transactions on Automatic Control</i> , 1987, 32, 747-748.	5.7	6
60	Gaussian mixture filter allowing negative weights and its application to positioning using signal strength measurements. , 2012, , .		6
61	Stock price dynamics and option valuations under volatility feedback effect. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2013, 392, 722-740.	2.6	6
62	A survey of parametric fingerprint-positioning methods. <i>Gyroscope and Navigation</i> , 2016, 7, 107-127.	1.3	6
63	Statistical Path Loss Parameter Estimation and Positioning using RSS Measurements. <i>The Journal of Global Positioning Systems</i> , 2013, 12, 13-27.	1.6	6
64	Noise-filtering properties of numerical methods for the inverse Abel transform. <i>IEEE Transactions on Instrumentation and Measurement</i> , 1992, 41, 517-522.	4.7	5
65	Robust estimation of a reception region from location fingerprints. , 2011, , .		5
66	Semantic labeling of places based on phone usage features using supervised learning. , 2014, , .		5
67	Bayesian analysis of GUHA hypotheses. <i>Journal of Intelligent Information Systems</i> , 2014, 42, 47-73.	3.9	5
68	GNSS orbit prediction with enhanced force model. , 2015, , .		5
69	Using unlocated fingerprints in generation of WLAN maps for indoor positioning. , 2012, , .		4
70	Graph-based map matching for indoor positioning. , 2015, , .		4
71	Indoor localisation using aroma fingerprints: A first sniff. , 2017, , .		4
72	Depth Estimation from Motion Parallax: Experimental Evaluation. , 2019, , .		4

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73	Benchmarking Nonlinear Filters. , 2006, , .		3
74	Bandwidth and storage reduction of radio maps for offline WLAN positioning. , 2013, , .		3
75	Statistical sensor fusion of ultra wide band ranging and real time kinematic satellite navigation. , 2015, , .		3
76	Statistical trilateration with skew-t errors. , 2015, , .		3
77	Latent force models in autonomous GNSS satellite orbit prediction. , 2017, , .		3
78	3D Angle-of-Arrival Positioning Using von Mises-Fisher Distribution. , 2018, , .		3
79	Towards Semantic SLAM: 3D Position and Velocity Estimation by Fusing Image Semantic Information with Camera Motion Parameters for Traffic Scene Analysis. Remote Sensing, 2021, 13, 388.	4.0	3
80	Bounds for the maximum deflection and curvature of nonuniform beam-columns. International Journal of Solids and Structures, 1993, 30, 1565-1577.	2.7	2
81	PNaFF: A modular software platform for testing hybrid position estimation algorithms. , 2008, , .		2
82	Matrix-based numerical modelling of financial differential equations. International Journal of Mathematical Modelling and Numerical Optimisation, 2009, 1, 88.	0.2	2
83	Mobile tracking in unknown non-line-of-sight conditions. , 2010, , .		2
84	Robust Kalman filter for positioning with wireless BS coverage areas. , 2012, , .		2
85	Application of the Hill-Clohesy-Wiltshire equation in GNSS orbit prediction. , 2014, , .		2
86	A method to enforce map constraints in a particle filter's position estimate. , 2014, , .		2
87	Gaussian flow sigma point filter for nonlinear Gaussian state-space models. , 2017, , .		2
88	Semantic Labeling of User Location Context Based on Phone Usage Features. Mobile Information Systems, 2017, 2017, 1-21.	0.6	2
89	Indoor Localisation using Aroma Fingerprints: Comparing Nearest Neighbour Classification Accuracy using Different Distance Measures. , 2018, , .		2
90	Bayesian fault detection method for linear systems with outliers. , 2012, , .		1

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91	Converting GNSS satellite orbit segments to GPS-compatible format. , 2012, , .		1
92	Enabling Technologies for Smart Mobile Services. Mobile Information Systems, 2016, 2016, 1-3.	0.6	1
93	Extended prediction of QZSS orbit and clock. , 2016, , .		1
94	A simplified Solar Radiation Pressure model for GNSS autonomous orbit prediction. , 2016, , .		1
95	A method for post-mission velocity and orientation estimation based on data fusion from MEMS-IMU and GNSS. , 2017, , .		1
96	Kalman-Type Filters and Smoothers for Pedestrian Dead Reckoning. , 2018, , .		1
97	Methods for Long-Term GNSS Clock Offset Prediction. , 2019, , .		1
98	A Comparison of Particle Filters for Personal Positioning. , 2008, , 173-178.		1
99	Deflection Estimates Using the Virtual Work Principle. Transactions of the Canadian Society for Mechanical Engineering, 1984, 8, 133-137.	0.8	0
100	Nyquist-type stability test for undamped elastic structures. International Journal of Control, 1990, 51, 1309-1318.	1.9	0
101	Inversion of Laplace transforms using polynomial series. International Journal of Systems Science, 1991, 22, 507-510.	5.5	0
102	Lower Bounds for Critical Buckling Load Using Matrix Norms. Journal of Engineering Mechanics - ASCE, 1993, 119, 1100-1107.	2.9	0
103	Supplement to the paper "Bounds for the extreme eigenvalues of symmetric matrices", ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2005, 85, 76-76.	1.6	0
104	Distance of Sample Measurement Points to Prototype Catalog Curve. Journal of Physics: Conference Series, 2006, 52, 27-35.	0.4	0
105	Calibration of GARCH models using concurrent accelerated random search. Applied Mathematics and Computation, 2013, 221, 522-534.	2.2	0
106	Parametrization and prediction of EGNOS GIVD values. , 2017, , .		0
107	Automatic numerical differentiation by maximum likelihood estimation of a linear Gaussian state space model. , 2019, , .		0
108	Bayesian Assaying of GUHA Nuggets. Communications in Computer and Information Science, 2010, , 348-355.	0.5	0

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109	Analyzing the Acquisition and Management of Context. International Journal of Interactive Communication Systems and Technologies, 2018, 8, 1-12.	0.7	0