

GÃ©rard Lachapelle

List of Publications by Year in descending order

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87
papers

2,526
citations

218381

26
h-index

214527

47
g-index

89
all docs

89
docs citations

89
times ranked

1888
citing authors

#	ARTICLE	IF	CITATIONS
1	Kinematic Zenith Tropospheric Delay Estimation with GNSS PPP in Mountainous Areas. Sensors, 2021, 21, 5709.	2.1	7
2	GNSS Precise Point Positioning with Android Smartphones and Comparison with High Performance Receivers. , 2019, , .		14
3	Multiantenna GNSS and Inertial Sensors/Odometer Coupling for Robust Vehicular Navigation. IEEE Internet of Things Journal, 2018, 5, 4816-4828.	5.5	34
4	Integration of GNSS and INS with a phased array antenna. GPS Solutions, 2018, 22, 1.	2.2	22
5	Characterization of Range and Time Performance of Indoor GNSS Signals. , 2018, , .		4
6	Galileo E1/E5 Measurement Monitoring - Theory, Testing and Analysis. , 2018, , .		1
7	Evaluation of a Low Cost Hand Held Unit with GNSS Raw Data Capability and Comparison with an Android Smartphone. Sensors, 2018, 18, 4185.	2.1	32
8	Design and Implementation of an RTK-Based Vector Phase Locked Loop. Sensors, 2018, 18, 845.	2.1	8
9	Spoofing Detection Using GNSS/INS/Odometer Coupling for Vehicular Navigation. Sensors, 2018, 18, 1305.	2.1	49
10	GNSS Code Multipath Mitigation by Cascading Measurement Monitoring Techniques. Sensors, 2018, 18, 1967.	2.1	18
11	Characterization of Signal Quality Monitoring Techniques for Multipath Detection in GNSS Applications. Sensors, 2017, 17, 1579.	2.1	25
12	Assessment of Measurement Distortions in GNSS Antenna Array Space-Time Processing. International Journal of Antennas and Propagation, 2016, 2016, 1-17.	0.7	25
13	Millimetre Level Accuracy GNSS Positioning with the Blind Adaptive Beamforming Method in Interference Environments. Sensors, 2016, 16, 1824.	2.1	10
14	Analysis of Multi-Antenna GNSS Receiver Performance under Jamming Attacks. Sensors, 2016, 16, 1937.	2.1	9
15	Benefits of GNSS IF data recording. , 2016, , .		8
16	Overview of Spatial Processing Approaches for GNSS Structural Interference Detection and Mitigation. Proceedings of the IEEE, 2016, 104, 1246-1257.	16.4	83
17	Performance analysis of GNSS multipath mitigation using antenna arrays. The Journal of Global Positioning Systems, 2016, 14, .	1.6	24
18	GNSS Space-Time Interference Mitigation and Attitude Determination in the Presence of Interference Signals. Sensors, 2015, 15, 12180-12204.	2.1	40

#	ARTICLE	IF	CITATIONS
19	Multiple sensors integration for pedestrian indoor navigation. , 2015, , .		8
20	Pseudolite interference mitigation and signal enhancements using an antenna array. , 2015, , .		6
21	Improving the reliability of personal navigation devices in harsh environments. , 2015, , .		1
22	Spoofing detection, classification and cancelation (SDCC) receiver architecture for a moving GNSS receiver. GPS Solutions, 2015, 19, 475-487.	2.2	56
23	Effects of the 2012â€“2013 solar maximum on GNSS signals in Brazil. GPS Solutions, 2015, 19, 309-319.	2.2	16
24	Precise Calibration of a GNSS Antenna Array for Adaptive Beamforming Applications. Sensors, 2014, 14, 9669-9691.	2.1	91
25	High Resolution GNSS Delay Estimation for Vehicular Navigation Utilizing a Doppler Combining Technique. Journal of Navigation, 2014, 67, 579-602.	1.0	2
26	Pre-Despreading Authenticity Verification for GPS L1 C/A Signals. Navigation, Journal of the Institute of Navigation, 2014, 61, 1-11.	1.7	33
27	Symbol Timing Acquisition for Collaborative OFDM WLAN-Based A-GPS. International Journal of Wireless Information Networks, 2013, 20, 281-293.	1.8	1
28	Enhanced pedestrian attitude estimation using vision aiding. Journal of Location Based Services, 2013, 7, 209-222.	1.4	1
29	Interference and multipath mitigation utilising a twoâ€“stage beamformer for global navigation satellite systems applications. IET Radar, Sonar and Navigation, 2013, 7, 55-66.	0.9	23
30	Use of High Sensitivity GNSS Receiver Doppler Measurements for Indoor Pedestrian Dead Reckoning. Sensors, 2013, 13, 4303-4326.	2.1	27
31	Motion Mode Recognition and Step Detection Algorithms for Mobile Phone Users. Sensors, 2013, 13, 1539-1562.	2.1	204
32	A New Approach for Improving Reliability of Personal Navigation Devices under Harsh GNSS Signal Conditions. Sensors, 2013, 13, 15221-15241.	2.1	15
33	INS Assisted Fuzzy Tracking Loop for GPS-Guided Missiles and Vehicular Applications. International Journal of Navigation and Observation, 2013, 2013, 1-17.	0.8	7
34	Design and Testing of a Multi-Sensor Pedestrian Location and Navigation Platform. Sensors, 2012, 12, 3720-3738.	2.1	36
35	Effect of camera characteristics on the accuracy of a visual gyroscope for indoor pedestrian navigation. , 2012, , .		9
36	Doppler Characterization of a Mobile GNSS Receiver in Multipath Fading Channels. Journal of Navigation, 2012, 65, 477-494.	1.0	11

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37	Use of magnetic quasi static field (QSF) updates for pedestrian navigation. , 2012, , .		12
38	A weighted combining method for GPS antenna diversity. , 2012, , .		1
39	GNSS spoofing detection in handheld receivers based on signal spatial correlation. , 2012, , .		63
40	Estimating MEMS gyroscope g-sensitivity errors in foot mounted navigation. , 2012, , .		20
41	Self-Contained Antenna Array Calibration using GNSS Signals. Navigation, Journal of the Institute of Navigation, 2012, 59, 209-220.	1.7	13
42	Mitigation of attitude and gyro errors through vision aiding. , 2012, , .		9
43	Step Length Estimation Using Handheld Inertial Sensors. Sensors, 2012, 12, 8507-8525.	2.1	197
44	Activity and environment classification using foot mounted navigation sensors. , 2012, , .		14
45	Spatial Characterization of GNSS Multipath Channels. International Journal of Antennas and Propagation, 2012, 2012, 1-15.	0.7	7
46	GPS spoofer countermeasure effectiveness based on signal strength, noise power, and C/N ₀ measurements. International Journal of Satellite Communications and Networking, 2012, 30, 181-191.	1.2	115
47	Coherent integration time limit of a mobile receiver for indoor GNSS applications. GPS Solutions, 2012, 16, 157-167.	2.2	9
48	Methodology for comparing two carrier phase tracking techniques. GPS Solutions, 2012, 16, 197-207.	2.2	22
49	Evaluation of GPS-based methods of relative positioning for automotive safety applications. Transportation Research Part C: Emerging Technologies, 2012, 23, 98-108.	3.9	34
50	Magnetic field based heading estimation for pedestrian navigation environments. , 2011, , .		49
51	Use of Earth's Magnetic Field for Mitigating Gyroscope Errors Regardless of Magnetic Perturbation. Sensors, 2011, 11, 11390-11414.	2.1	79
52	Data Fusion Algorithms for Multiple Inertial Measurement Units. Sensors, 2011, 11, 6771-6798.	2.1	90
53	Choosing the coherent integration time for Kalman filter-based carrier-phase tracking of GNSS signals. GPS Solutions, 2011, 15, 345-356.	2.2	68
54	Combined L1/L2 Kalman filter-based tracking scheme for weak signal environments. GPS Solutions, 2011, 15, 403-414.	2.2	5

#	ARTICLE	IF	CITATIONS
55	SATLSim: a Semi-Analytic framework for fast GNSS tracking loop simulations. GPS Solutions, 2011, 15, 427-431.	2.2	21
56	GNSS Spoofing Detection for Single Antenna Handheld Receivers. Navigation, Journal of the Institute of Navigation, 2011, 58, 335-344.	1.7	50
57	Enhanced Detection Performance of Indoor GNSS Signals Based on Synthetic Aperture. IEEE Transactions on Vehicular Technology, 2010, 59, 2711-2724.	3.9	12
58	Combined Acquisition and Tracking Methods for GPS L1 C/A and L1C Signals. International Journal of Navigation and Observation, 2010, 2010, 1-19.	0.8	10
59	Comparing detection performance of polarization and spatial diversity for indoor GNSS applications. , 2010, , .		5
60	GLRT signal detection performance of a synthetic array. , 2010, , .		0
61	Measuring Aircraft Carrier Flexure in Support of Autonomous Aircraft Landings. IEEE Transactions on Aerospace and Electronic Systems, 2009, 45, 523-535.	2.6	22
62	A non-coherent architecture for GNSS digital tracking loops. Annales Des Telecommunications/Annals of Telecommunications, 2009, 64, 601-614.	1.6	28
63	Consideration of time-correlated errors in a Kalman filter applicable to GNSS. Journal of Geodesy, 2009, 83, 51-56.	1.6	101
64	Future GNSS Signals. International Journal of Navigation and Observation, 2008, 2008, 1-1.	0.8	0
65	Design of Short Synchronization Codes for Use in Future GNSS System. International Journal of Navigation and Observation, 2008, 2008, 1-14.	0.8	8
66	Architecture and Benefits of an Advanced GNSS Software Receiver. The Journal of Global Positioning Systems, 2008, 7, 156-168.	1.6	57
67	Controlled GPS Signal Simulation for Indoors. Journal of Navigation, 2007, 60, 265-280.	1.0	7
68	Galileo L1 Civil Receiver Tracking Loops' Architecture. , 2007, , .		3
69	ASPeCT: Unambiguous sine-BOC(n,n) acquisition/tracking technique for navigation applications. IEEE Transactions on Aerospace and Electronic Systems, 2007, 43, 150-162.	2.6	186
70	Differential combining for acquiring weak GPS signals. Signal Processing, 2007, 87, 824-840.	2.1	35
71	Pedestrian navigation with high sensitivity GPS receivers and MEMS. Personal and Ubiquitous Computing, 2007, 11, 481-488.	1.9	25
72	User-level reliability monitoring in urban personal satellite-navigation. IEEE Transactions on Aerospace and Electronic Systems, 2007, 43, 1305-1318.	2.6	8

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73	Investigating GPS Signals Indoors with Extreme High-Sensitivity Detection Techniques. Navigation, Journal of the Institute of Navigation, 2005, 52, 199-213.	1.7	26
74	Development of an Integrated Low-Cost GPS/Rate Gyro System for Attitude Determination. Journal of Navigation, 2004, 57, 85-101.	1.0	20
75	Effects of building materials on UHF ranging signals. GPS Solutions, 2004, 8, 1-8.	2.2	6
76	Position and velocity reliability testing in degraded GPS signal environments. GPS Solutions, 2004, 8, 226-237.	2.2	41
77	Letter from the Guest Editors: The GPS Wireless Special Issue. GPS Solutions, 2002, 6, 137-137.	2.2	0
78	GPS on the Web. GPS Solutions, 2001, 4, 55-56.	2.2	0
79	GPS on the Web. GPS Solutions, 2001, 5, 70-70.	2.2	0
80	GPS on the Web. GPS Solutions, 2001, 5, 90-90.	2.2	0
81	Heading and Pitch Determination Using GPS/GLONASS. GPS Solutions, 2000, 3, 26-36.	2.2	15
82	GPS on the Web. GPS Solutions, 2000, 3, 69-69.	2.2	0
83	GPS on the Web. GPS Solutions, 2000, 3, 70-70.	2.2	6
84	GPS on the Web. GPS Solutions, 2000, 4, 79-79.	2.2	0
85	GPS on the Web. GPS Solutions, 2000, 4, 83-83.	2.2	0
86	DGPS Kinematic Carrier Phase Signal Simulation Analysis for Precise Velocity and Position Determination. Navigation, Journal of the Institute of Navigation, 1997, 44, 231-245.	1.7	29
87	High-precision GPS navigation with emphasis on carrier-phase ambiguity resolution. Marine Geodesy, 1992, 15, 253-269.	0.9	38