Kristine Larson

List of Publications by Year
in descending order

126 papers	12,290 citations	30551 56 h-index	28425 109 g-index
137 all docs	137 docs citations	137 times ranked	8729 citing authors

#	Article	IF	Citations
1	Snow Depth Measurements by GNSS-IR at an Automatic Weather Station, NUK-K. Remote Sensing, 2022, 14, 2563.	1.8	1
2	Dynamic Sea Level Variation From GNSS: 2020 Shumagin Earthquake Tsunami Resonance and Hurricane Laura. Geophysical Research Letters, 2021, 48, e2020GL091378.	1.5	25
3	Ten years of Lake TaupÅ•surface height estimates using the GNSS interferometric reflectometry. Journal of Geodesy, 2021, 95, 1.	1.6	8
4	Modeling GPS Signal Propagation Through Volcanic Plumes. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034526.	1.2	2
5	Measuring Coastal Absolute Sea-Level Changes Using GNSS Interferometric Reflectometry. Remote Sensing, 2021, 13, 4319.	1.8	10
6	The International Soil Moisture Network: serving Earth system science for over a decade. Hydrology and Earth System Sciences, 2021, 25, 5749-5804.	1.9	116
7	New determinations of tides on the north-western Ross Ice Shelf. Antarctic Science, 2021, 33, 89-102.	0.5	5
8	Novel Quantification of Shallow Sediment Compaction by GPS Interferometric Reflectometry and Implications for Flood Susceptibility. Geophysical Research Letters, 2020, 47, e2020GL087807.	1.5	12
9	Brief Communication: Update on the GPS reflection technique for measuring snow accumulation in Greenland. Cryosphere, 2020, 14, 1985-1988.	1.5	11
10	Unanticipated Uses of the Global Positioning System. Annual Review of Earth and Planetary Sciences, 2019, 47, 19-40.	4.6	28
11	Application of GNSS interferometric reflectometry for detecting storm surges. GPS Solutions, 2019, 23, 1.	2.2	46
12	Design and Preliminary Testing of the Volcanic Ash Plume Receiver Network. Journal of Atmospheric and Oceanic Technology, 2019, 36, 353-367.	0.5	3
13	Global Ocean Altimetry With GNSS Reflections From TechDemoSat-1. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 4088-4097.	2.7	52
14	GPS Interferometric Reflectometry Reveals Cyclic Elevation Changes in Thaw and Freezing Seasons in a Permafrost Area (Barrow, Alaska). Geophysical Research Letters, 2018, 45, 5581-5589.	1.5	27
15	Decadal changes of surface elevation over permafrost area estimated using reflected GPS signals. Cryosphere, 2018, 12, 477-489.	1.5	29
16	Software tools for GNSS interferometric reflectometry (GNSS-IR). GPS Solutions, 2018, 22, 1.	2.2	95
17	Vegetation Response to the 2012â€“2014 California Drought from GPS and Optical Measurements. Remote Sensing, 2018, 10, 630.	1.8	13
18	Detection of plumes at Redoubt and Etna volcanoes using the GPS SNR method. Journal of Volcanology and Geothermal Research, 2017, 344, 26-39.	0.8	14

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19	A 10-Year Comparison of Water Levels Measured with a Geodetic GPS Receiver versus a Conventional Tide Gauge. Journal of Atmospheric and Oceanic Technology, 2017, 34, 295-307.	0.5	108
20	Snow accumulation variability on a West Antarctic ice stream observed with GPS reflectometry, 2007â€“2017. Geophysical Research Letters, 2017, 44, 7808-7816.	1.5	23
21	GPS-derived estimates of surface mass balance and ocean-induced basal melt for Pine Island Glacier ice shelf, Antarctica. Cryosphere, 2017, 11, 2655-2674.	1.5	16
22	<scp>GPS</scp> interferometric reflectometry: applications to surface soil moisture, snow depth, and vegetation water content in the western United States. Wiley Interdisciplinary Reviews: Water, 2016, 3, 775-787.	2.8	77
23	An Assessment of the Precision and Accuracy of Altimetry Retrievals for a Monterey Bay GNSS-R Experiment. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 4660-4668.	2.3	29
24	Cover Image, Volume 3, Issue 6. Wiley Interdisciplinary Reviews: Water, 2016, 3, i.	2.8	0
25	Validation of GPS-IR Soil Moisture Retrievals: Comparison of Different Algorithms to Remove Vegetation Effects. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 4759-4770.	2.3	51
26	Estimation of Snow Depth Using L1 GPS Signal-to-Noise Ratio Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 4802-4808.	2.3	44
27	An algorithm for soil moisture estimation using GPS-interferometric reflectometry for bare and vegetated soil. GPS Solutions, 2016, 20, 525-537.	2.2	94
28	Constraints on snow accumulation and firn density in Greenland using GPS receivers. Journal of Glaciology, 2015, 61, 101-114.	1.1	20
29	Vegetation Sensing Using GPS-Interferometric Reflectometry: Theoretical Effects of Canopy Parameters on Signal-to-Noise Ratio Data. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 2755-2764.	2.7	68
30	Using geodetic GPS receivers to measure vegetation water content. GPS Solutions, 2015, 19, 237-248.	2.2	74
31	GPS ground networks for water cycle sensing. , 2014, , .		3
32	Forward modeling of GPS multipath for near-surface reflectometry and positioning applications. GPS Solutions, 2014, 18, 309-322.	2.2	139
33	Effects of Near-Surface Soil Moisture on GPS SNR Data: Development of a Retrieval Algorithm for Soil Moisture. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 537-543.	2.7	138
34	Inverse Modeling of GPS Multipath for Snow Depth Estimationâ€”Part II: Application and Validation. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 6564-6573.	2.7	63
35	Inverse Modeling of GPS Multipath for Snow Depth Estimationâ€”Part I: Formulation and Simulations. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 6555-6563.	2.7	82
36	Comparison of vegetation phenology in the western USA determined from reflected GPS microwave signals and NDVI. International Journal of Remote Sensing, 2014, 35, 2996-3017.	1.3	15

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37	Comparing land surface phenology derived from satellite and GPS network microwave remote sensing. International Journal of Biometeorology, 2014, 58, 1305-1315.	1.3	11
38	An open source GPS multipath simulator in Matlab/Octave. GPS Solutions, 2014, 18, 473-481.	2.2	59
39	Normalized Microwave Reflection Index: A Vegetation Measurement Derived From GPS Networks. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1501-1511.	2.3	41
40	Normalized Microwave Reflection Index: Validation of Vegetation Water Content Estimates From Montana Grasslands. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1512-1521.	2.3	24
41	First results from an airborne GPS radio occultation system for atmospheric profiling. Geophysical Research Letters, 2014, 41, 1759-1765.	1.5	22
42	Snow depth, density, and SWE estimates derived from GPS reflection data: Validation in the western U. S.. Water Resources Research, 2014, 50, 6892-6909.	1.7	65
43	Satellite clock bias estimation for iGPS. GPS Solutions, 2013, 17, 381-389.	2.2	13
44	Coastal sea level measurements using a single geodetic GPS receiver. Advances in Space Research, 2013, 51, 1301-1310.	1.2	187
45	A methodology to eliminate snowâ€•and iceâ€contaminated solutions from GPS coordinate time series. Journal of Geophysical Research: Solid Earth, 2013, 118, 4503-4510.	1.4	10
46	The Accidental Tide Gauge: A GPS Reflection Case Study From Kachemak Bay, Alaska. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 1200-1204.	1.4	153
47	GPS snow sensing: results from the EarthScope Plate Boundary Observatory. GPS Solutions, 2013, 17, 41-52.	2.2	173
48	A new way to detect volcanic plumes. Geophysical Research Letters, 2013, 40, 2657-2660.	1.5	40
49	Using <scp>GPS</scp> to Study the Terrestrial Water Cycle. Eos, 2013, 94, 505-506.	0.1	12
50	State of the Art in Large-Scale Soil Moisture Monitoring. Soil Science Society of America Journal, 2013, 77, 1888-1919.	1.2	335
51	Snow measurement by GPS interferometric reflectometry: an evaluation at Niwot Ridge, Colorado. Hydrological Processes, 2012, 26, 2951-2961.	1.1	79
52	Spatiotemporal evolution of dike opening and dÃ©collement slip at KÄ«lauea Volcano, Hawai'i. Journal of Geophysical Research, 2011, 116, .	3.3	38
53	Longitudinal variations in theFregion ionosphere and the topside ionosphere-plasmasphere: Observations and model simulations. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	61
54	A Physical Model for GPS Multipath Caused by Land Reflections: Toward Bare Soil Moisture Retrievals. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 100-110.	2.3	160

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55	GPS Multipath and Its Relation to Near-Surface Soil Moisture Content. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 91-99.	2.3	220
56	Volcano monitoring using GPS: Developing data analysis strategies based on the June 2007 KÄ«lauea Volcano intrusion and eruption. Journal of Geophysical Research, 2010, 115, .	3.3	39
57	Sensing vegetation growth with reflected GPS signals. Geophysical Research Letters, 2010, 37, .	1.5	129
58	Routine determination of the plasmapause based on COSMIC GPS total electron content observations of the midlatitude trough. Journal of Geophysical Research, 2010, 115, .	3.3	37
59	GPS seismology. Journal of Geodesy, 2009, 83, 227-233.	1.6	111
60	Can we measure snow depth with GPS receivers?. Geophysical Research Letters, 2009, 36, .	1.5	277
61	Observations of the ionospheric response to the 15 December 2006 geomagnetic storm: Longâ€duration positive storm effect. Journal of Geophysical Research, 2009, 114, .	3.3	68
62	Fault friction parameters inferred from the early stages of afterslip following the 2003 Tokachiâ€oki earthquake. Journal of Geophysical Research, 2009, 114, .	3.3	42
63	Using GPS multipath to measure soil moisture fluctuations: initial results. GPS Solutions, 2008, 12, 173-177.	2.2	213
64	Coseismic and early postseismic slip for the 2003 Tokachiâ€oki earthquake sequence inferred from GPS data. Geophysical Research Letters, 2008, 35, .	1.5	50
65	Geodetic measurements of postglacial adjustments in Greenland. Journal of Geophysical Research, 2008, 113, .	3.3	37
66	Modeling GPS phase multipath with SNR: Case study from the Salar de Uyuni, Boliva. Journal of Geophysical Research, 2008, 113, .	3.3	82
67	Use of GPS receivers as a soil moisture network for water cycle studies. Geophysical Research Letters, 2008, 35, .	1.5	316
68	Changes in the longitudinal structure of the lowâ€latitude ionosphere during the July 2004 sequence of geomagnetic storms. Journal of Geophysical Research, 2008, 113, .	3.3	16
69	Correction to â€œSeismically and geodetically determined nondoubleâ€couple source mechanisms from the 2000 Miyakejima volcanic earthquake swarmâ€. Journal of Geophysical Research, 2008, 113, .	3.3	0
70	Correction to â€œMapping the GPS multipath environment using the signalâ€toâ€noise ratio (SNR)â€. Radio Science, 2008, 43, .	0.8	5
71	Resolving static offsets from high-rate GPS data: the 2003 Tokachi-oki earthquake. Earth, Planets and Space, 2008, 60, 801-808.	0.9	23
72	GPS Seismology: Application to the 2002 Mw 7.9 Denali Fault Earthquake. Bulletin of the Seismological Society of America, 2008, 98, 593-606.	1.1	84

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73	Stability and Uncertainty of Finite-Fault Slip Inversions: Application to the 2004 Parkfield, California, Earthquake. Bulletin of the Seismological Society of America, 2007, 97, 1911-1934.	1.1	68
74	Recovering Seismic Displacements through Combined Use of 1-Hz GPS and Strong-Motion Accelerometers. Bulletin of the Seismological Society of America, 2007, 97, 357-378.	1.1	95
75	An assessment of relativistic effects for low Earth orbiters: the GRACE satellites. Metrologia, 2007, 44, 484-490.	0.6	36
76	Seismicity variations associated with aseismic transients in Guerrero, Mexico, 1995â€“2006. Earth and Planetary Science Letters, 2007, 262, 493-504.	1.8	25
77	Improving the precision of high-rate GPS. Journal of Geophysical Research, 2007, 112, .	3.3	119
78	Seismically and geodetically determined nondoubleâ€couple source mechanisms from the 2000 Miyakejima volcanic earthquake swarm. Journal of Geophysical Research, 2007, 112, .	3.3	69
79	The 2006 aseismic slow slip event in Guerrero, Mexico: New results from GPS. Geophysical Research Letters, 2007, 34, .	1.5	66
80	Elastic uplift in southeast Greenland due to rapid ice mass loss. Geophysical Research Letters, 2007, 34, .	1.5	55
81	Mapping the GPS multipath environment using the signalâ€toâ€noise ratio (SNR). Radio Science, 2007, 42, .	0.8	140
82	Frictional Properties on the San Andreas Fault near Parkfield, California, Inferred from Models of Afterslip following the 2004 Earthquake. Bulletin of the Seismological Society of America, 2006, 96, S321-S338.	1.1	124
83	Finding the repeat times of the GPS constellation. GPS Solutions, 2006, 11, 71-76.	2.2	166
84	Absolute calibration of a geodetic time transfer system. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2005, 52, 1904-1911.	1.7	46
85	Long-term comparisons between two-way satellite and geodetic time transfer systems. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2005, 52, 1912-1918.	1.7	5
86	Propagation of the 2001â€“2002 silent earthquake and interplate coupling in the Oaxaca subduction zone, Mexico. Earth, Planets and Space, 2005, 57, 973-985.	0.9	58
87	Earthquake nucleation by transient deformations caused by the M = 7.9 Denali, Alaska, earthquake. Nature, 2004, 427, 621-624.	13.7	186
88	Crustal deformation measurements in Guerrero, Mexico. Journal of Geophysical Research, 2004, 109, .	3.3	90
89	Slip history of the 2003 San Simeon earthquake constrained by combining 1-Hz GPS, strong motion, and teleseismic data. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	102
90	Modeling the rupture process of the 2003 September 25 Tokachi-Oki (Hokkaido) earthquake using 1-Hz GPS data. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	109

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91	Modified sidereal filtering: Implications for high-rate GPS positioning. Geophysical Research Letters, 2004, 31, .	1.5	247
92	Interplate coupling and a recent aseismic slow slip event in the Guerrero seismic gap of the Mexican subduction zone, as deduced from GPS data inversion using a Bayesian information criterion. Physics of the Earth and Planetary Interiors, 2004, 146, 513-530.	0.7	59
93	A large silent earthquake in the Guerrero seismic gap, Mexico. Geophysical Research Letters, 2003, 30, .	1.5	232
94	Using 1-Hz GPS Data to Measure Deformations Caused by the Denali Fault Earthquake. Science, 2003, 300, 1421-1424.	6.0	285
95	Surface Melt-Induced Acceleration of Greenland Ice-Sheet Flow. Science, 2002, 297, 218-222.	6.0	938
96	Present-day crustal movement and tectonic deformation in China continent. Science in China Series D: Earth Sciences, 2002, 45, 865-874.	0.9	35
97	Global positioning system, theory and practice, 5th edition. Eos, 2001, 82, 365-365.	0.1	19
98	The motion and active deformation of India. Geophysical Research Letters, 2001, 28, 647-650.	1.5	253
99	Crustal displacements due to continental water loading. Geophysical Research Letters, 2001, 28, 651-654.	1.5	324
100	Geodetic measurements in Greenland and their implications. Journal of Geophysical Research, 2001, 106, 16567-16581.	3.3	45
101	Volcano monitoring using the Global Positioning System: Filtering strategies. Journal of Geophysical Research, 2001, 106, 19453-19464.	3.3	37
102	GPS measurements of vertical crustal motion in Greenland. Journal of Geophysical Research, 2001, 106, 33755-33759.	3.3	20
103	Transient fault slip in Guerrero, southern Mexico. Geophysical Research Letters, 2001, 28, 3753-3756.	1.5	172
104	Analysis of gps data collected on the Greenland ice sheet¹. Polar Geography, 2001, 25, 22-40.	0.8	5
105	Present-Day Crustal Deformation in China Constrained by Global Positioning System Measurements. Science, 2001, 294, 574-577.	6.0	990
106	The terrestrial reference frame and the dynamic Earth. Eos, 2001, 82, 273-279.	0.1	21
107	Geodetic evidence for a low slip rate in the Altyn Tagh fault system. Nature, 2000, 404, 69-72.	13.7	227
108	Assessment of GPS carrier-phase stability for time-transfer applications. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2000, 47, 484-494.	1.7	53

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109	Measuring postglacial rebound with GPS and absolute gravity. Geophysical Research Letters, 2000, 27, 3925-3928.	1.5	53
110	Using GPS and gravity to infer ice mass changes in Greenland. Eos, 2000, 81, 421.	0.1	14
111	Carrier-phase time transfer. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 1999, 46, 1001-1012.	1.7	60
112	Secular and tidal strain across the Main Ethiopian Rift. Geophysical Research Letters, 1999, 26, 2789-2792.	1.5	131
113	Kinematics of the India-Eurasia collision zone from GPS measurements. Journal of Geophysical Research, 1999, 104, 1077-1093.	3.3	322
114	Time transfer using the phase of the GPS carrier. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 1998, 45, 539-540.	1.7	29
115	Global plate velocities from the Global Positioning System. Journal of Geophysical Research, 1997, 102, 9961-9981.	3.3	233
116	GPS measurements of present-day convergence across the Nepal Himalaya. Nature, 1997, 386, 61-64.	13.7	641
117	Global Positioning System measurements of Indian Plate Motion and convergence across the lesser Himalaya. Geophysical Research Letters, 1996, 23, 3107-3110.	1.5	35
118	Crustal deformation. Reviews of Geophysics, 1995, 33, 371.	9.0	5
119	Relative motions of the Australian, Pacific and Antarctic Plates estimated by the Global Positioning System. Geophysical Research Letters, 1995, 22, 37-40.	1.5	24
120	Strain accumulation in the Shumagin Islands: Results of initial GPS measurements. Geophysical Research Letters, 1994, 21, 489-492.	1.5	22
121	Application of the global positioning system to crustal deformation measurements: 3. Result from the southern California borderlands. Journal of Geophysical Research, 1993, 98, 21713-21726.	3.3	16
122	Space geodetic measurement of crustal deformation in central and southern California, 1984â€“1992. Journal of Geophysical Research, 1993, 98, 21677-21712.	3.3	247
123	Deformation in the Santa Barbara Channel from GPS measurements 1987â€“1991. Geophysical Research Letters, 1992, 19, 1491-1494.	1.5	19
124	Application of the global positioning system to crustal deformation measurement: 1. Precision and accuracy. Journal of Geophysical Research, 1991, 96, 16547-16565.	3.3	89
125	Application of the global positioning system to crustal deformation measurement: 2. The influence of errors in orbit determination networks. Journal of Geophysical Research, 1991, 96, 16567-16584.	3.3	28
126	Evaluation of GPS estimates of relative positions from central California, 1986â€“1988. Geophysical Research Letters, 1990, 17, 2433-2436.	1.5	9