

Laurent Longuevergne

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

9,250
citations

87888

38
h-index

64796

79
g-index

118
all docs

118
docs citations

118
times ranked

9286
citing authors

#	ARTICLE	IF	CITATIONS
1	Understanding the Geodetic Signature of Large Aquifer Systems: Example of the Ozark Plateaus in Central United States. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	9
2	Combining passive and active distributed temperature sensing measurements to locate and quantify groundwater discharge variability into a headwater stream. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 1459-1479.	4.9	6
3	Deep mass redistribution prior to the 2010 Mw 8.8 Maule (Chile) Earthquake revealed by GRACE satellite gravity. <i>Earth and Planetary Science Letters</i> , 2022, 584, 117465.	4.4	13
4	Numerical and Experimental Validation of the Applicability of Activeâ€œDTS Experiments to Estimate Thermal Conductivity and Groundwater Flux in Porous Media. <i>Water Resources Research</i> , 2021, 57, .	4.2	27
5	Mechanical Response of Shallow Crust to Groundwater Storage Variations: Inferences From Deformation and Seismic Observations in the Eastern Southern Alps, Italy. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020586.	3.4	20
6	RECOG RL01: correcting GRACE total water storage estimates for global lakes/reservoirs and earthquakes. <i>Earth System Science Data</i> , 2021, 13, 2227-2244.	9.9	11
7	Modelling borehole flows from Distributed Temperature Sensing data to monitor groundwater dynamics in fractured media. <i>Journal of Hydrology</i> , 2021, 598, 126450.	5.4	4
8	Individual and joint inversion of head and flux data by geostatistical hydraulic tomography. <i>Advances in Water Resources</i> , 2021, 154, 103960.	3.8	5
9	Controls on Spatial and Temporal Patterns of Slope Deformation in an Alpine Valley. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2021JF006353.	2.8	4
10	The AquifR hydrometeorological modelling platform as a tool for improving groundwater resource monitoring over France: evaluation over a 60-year period. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 633-654.	4.9	16
11	Time-Lapse Seismic and Electrical Monitoring of the Vadose Zone during a Controlled Infiltration Experiment at the Ploemeur Hydrological Observatory, France. <i>Water (Switzerland)</i> , 2020, 12, 1230.	2.7	19
12	Integrating groundwater irrigation into hydrological simulation of India: Case of improving model representation of anthropogenic water use impact using GRACE. <i>Journal of Hydrology: Regional Studies</i> , 2020, 29, 100681.	2.4	15
13	A Comparison of Different Methods to Estimate the Effective Spatial Resolution of FO-DTS Measurements Achieved during Sandbox Experiments. <i>Sensors</i> , 2020, 20, 570.	3.8	22
14	Quantifying sediment mass redistribution from joint time-lapse gravimetry and photogrammetry surveys. <i>Earth Surface Dynamics</i> , 2020, 8, 555-577.	2.4	6
15	Glacial Melt and Potential Impacts on Water Resources in the Canadian Rocky Mountains. <i>Water Resources Research</i> , 2019, 55, 10191-10217.	4.2	29
16	Monitoring of groundwater redistribution in a karst aquifer using a superconducting gravimeter. <i>E3S Web of Conferences</i> , 2019, 88, 03001.	0.5	9
17	Mass variation observing system by high low inter-satellite links (MOBILE) â€œ a new concept for sustained observation of mass transport from space. <i>Journal of Geodetic Science</i> , 2019, 9, 48-58.	1.0	12
18	Dipole and Convergent Single-Well Thermal Tracer Tests for Characterizing the Effect of Flow Configuration on Thermal Recovery. <i>Geosciences (Switzerland)</i> , 2019, 9, 440.	2.2	4

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19	Assessment of the impacts of climate variability on total water storage across Africa: implications for groundwater resources management. <i>Hydrogeology Journal</i> , 2019, 27, 493-512.	2.1	28
20	Global models underestimate large decadal declining and rising water storage trends relative to GRACE satellite data. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E1080-E1089.	7.1	376
21	Autotrophic denitrification supported by biotite dissolution in crystalline aquifers: (2) transient mixing and denitrification dynamic during long-term pumping. <i>Science of the Total Environment</i> , 2018, 619-620, 491-503.	8.0	15
22	Quantitative mapping of groundwater depletion at the water management scale using a combined GRACE/InSAR approach. <i>Remote Sensing of Environment</i> , 2018, 205, 408-418.	11.0	94
23	Efficient basin scale filtering of GRACE satellite products. <i>Remote Sensing of Environment</i> , 2018, 204, 76-93.	11.0	38
24	OZCAR: The French Network of Critical Zone Observatories. <i>Vadose Zone Journal</i> , 2018, 17, 1-24.	2.2	126
25	Estimating picking errors in near-surface seismic data to enable their time-lapse interpretation of hydrosystems. <i>Near Surface Geophysics</i> , 2018, 16, 613-625.	1.2	14
26	Assessing modern river sediment discharge to the ocean using satellite gravimetry. <i>Nature Communications</i> , 2018, 9, 3384.	12.8	48
27	Global sea-level budget 1993–present. <i>Earth System Science Data</i> , 2018, 10, 1551-1590.	9.9	409
28	Global analysis of spatiotemporal variability in merged total water storage changes using multiple GRACE products and global hydrological models. <i>Remote Sensing of Environment</i> , 2017, 192, 198-216.	11.0	223
29	New insights on fractures deformation from tiltmeter data measured inside the Fontaine de Vaucluse karst system. <i>Geophysical Journal International</i> , 2017, 208, 1389-1402.	2.4	22
30	Monitoring ground water storage at mesoscale using seismic noise: 30 years of continuous observation and thermo-elastic and hydrological modeling. <i>Scientific Reports</i> , 2017, 7, 14241.	3.3	69
31	Typhoon-induced Ground Deformation. <i>Geophysical Research Letters</i> , 2017, 44, 11,004.	4.0	18
32	Combining periodic hydraulic tests and surface tilt measurements to explore in situ fracture hydromechanics. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 6046-6066.	3.4	14
33	Natural and human-induced terrestrial water storage change: A global analysis using hydrological models and GRACE. <i>Journal of Hydrology</i> , 2017, 553, 105-118.	5.4	90
34	Understanding the Hydromechanical Behavior of a Fault Zone From Transient Surface Tilt and Fluid Pressure Observations at Hourly Time Scales. <i>Water Resources Research</i> , 2017, 53, 10558-10582.	4.2	10
35	Recent changes in terrestrial water storage in the Upper Nile Basin: an evaluation of commonly used gridded GRACE products. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 4533-4549.	4.9	43
36	Does GRACE see the terrestrial water cycle “intensifying”? <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 733-745.	3.3	87

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37	Assessing Groundwater Depletion and Dynamics Using <scp>GRACE</scp> and <scp>InSAR</scp>: Potential and Limitations. <i>Ground Water</i> , 2016, 54, 768-780.	1.3	93
38	Mapping probabilities of extreme continental water storage changes from space gravimetry. <i>Geophysical Research Letters</i> , 2016, 43, 8026-8034.	4.0	34
39	Global evaluation of new <scp>GRACE</scp> mascon products for hydrologic applications. <i>Water Resources Research</i> , 2016, 52, 9412-9429.	4.2	344
40	Inferring field-scale properties of a fractured aquifer from ground surface deformation during a well test. <i>Geophysical Research Letters</i> , 2015, 42, 10,696.	4.0	17
41	2D characterization of near-surface : surface-wave dispersion inversion versus refraction tomography. <i>Near Surface Geophysics</i> , 2015, 13, 315-332.	1.2	28
42	Contribution of the finite volume point dilution method for measurement of groundwater fluxes in a fractured aquifer. <i>Journal of Contaminant Hydrology</i> , 2015, 182, 244-255.	3.3	22
43	Incorporation of groundwater pumping in a global Land Surface Model with the representation of human impacts. <i>Water Resources Research</i> , 2015, 51, 78-96.	4.2	162
44	Global analysis of approaches for deriving total water storage changes from GRACE satellites. <i>Water Resources Research</i> , 2015, 51, 2574-2594.	4.2	179
45	Substantial glacier mass loss in the Tien Shan over the past 50 years. <i>Nature Geoscience</i> , 2015, 8, 716-722.	12.9	332
46	Science and User Needs for Observing Global Mass Transport to Understand Global Change and to Benefit Society. <i>Surveys in Geophysics</i> , 2015, 36, 743-772.	4.6	79
47	New Estimates of Variations in Water Flux and Storage over Europe Based on Regional (Re)Analyses and Multisensor Observations. <i>Journal of Hydrometeorology</i> , 2014, 15, 2397-2417.	1.9	14
48	Uncertainty in evapotranspiration from land surface modeling, remote sensing, and GRACE satellites. <i>Water Resources Research</i> , 2014, 50, 1131-1151.	4.2	394
49	Drought and flood monitoring for a large karst plateau in Southwest China using extended GRACE data. <i>Remote Sensing of Environment</i> , 2014, 155, 145-160.	11.0	321
50	Multivariate Prediction of Total Water Storage Changes Over West Africa from Multi-Satellite Data. <i>Surveys in Geophysics</i> , 2014, 35, 913-940.	4.6	72
51	Hydrological behavior of a deep sub-vertical fault in crystalline basement and relationships with surrounding reservoirs. <i>Journal of Hydrology</i> , 2014, 509, 42-54.	5.4	48
52	Investigating the respective impacts of groundwater exploitation and climate change on wetland extension over 150 years. <i>Journal of Hydrology</i> , 2014, 509, 367-378.	5.4	19
53	Ground water and climate change. <i>Nature Climate Change</i> , 2013, 3, 322-329.	18.8	1,513
54	GRACE satellite monitoring of large depletion in water storage in response to the 2011 drought in Texas. <i>Geophysical Research Letters</i> , 2013, 40, 3395-3401.	4.0	315

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55	GRACE water storage estimates for the Middle East and other regions with significant reservoir and lake storage. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 4817-4830.	4.9	106
56	Temporal and spatial scaling of hydraulic response to recharge in fractured aquifers: Insights from a frequency domain analysis. <i>Water Resources Research</i> , 2013, 49, 3007-3023.	4.2	68
57	Groundwater depletion and sustainability of irrigation in the US High Plains and Central Valley. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 9320-9325.	7.1	951
58	Nitrate dynamics in agricultural catchments deduced from groundwater dating and long-term nitrate monitoring in surface and groundwaters. <i>Science of the Total Environment</i> , 2012, 435-436, 167-178.	8.0	67
59	Monitoring groundwater storage changes in the highly seasonal humid tropics: Validation of GRACE measurements in the Bengal Basin. <i>Water Resources Research</i> , 2012, 48, .	4.2	176
60	Ground referencing GRACE satellite estimates of groundwater storage changes in the California Central Valley, USA. <i>Water Resources Research</i> , 2012, 48, .	4.2	317
61	Sediment transfer and the hydrological cycle of Himalayan rivers in Nepal. <i>Comptes Rendus - Geoscience</i> , 2012, 344, 627-635.	1.2	27
62	Impact of transient groundwater storage on the discharge of Himalayan rivers. <i>Nature Geoscience</i> , 2012, 5, 127-132.	12.9	242
63	Calibration and evaluation of a semi-distributed watershed model of Sub-Saharan Africa using GRACE data. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 3083-3099.	4.9	54
64	Field Test of the Superconducting Gravimeter as a Hydrologic Sensor. <i>Ground Water</i> , 2012, 50, 442-449.	1.3	24
65	Assessing the water balance of the Upper Rhine Graben hydrosystem. <i>Journal of Hydrology</i> , 2012, 424-425, 68-83.	5.4	24
66	The Superconducting Gravimeter as a Field Instrument Applied to Hydrology. <i>International Association of Geodesy Symposia</i> , 2012, , 291-295.	0.4	0
67	The community Noah land surface model with multiparameterization options (Noah-MP): 2. Evaluation over global river basins. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	475
68	Interannual variability in water storage over 2003-2008 in the Amazon Basin from GRACE space gravimetry, in situ river level and precipitation data. <i>Remote Sensing of Environment</i> , 2010, 114, 1629-1637.	11.0	102
69	Neotectonics and current hydrologically-induced karst deformation. Case study of the Plateau de Calern (Alpes-Maritimes, France). <i>Geodinamica Acta</i> , 2010, 23, 49-64.	2.2	7
70	GRACE Hydrological estimates for small basins: Evaluating processing approaches on the High Plains Aquifer, USA. <i>Water Resources Research</i> , 2010, 46, .	4.2	258
71	Recent La Plata basin drought conditions observed by satellite gravimetry. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	91
72	Tilt and strain deformation induced by hydrologically active natural fractures: application to the tiltmeters installed in Sainte-Croix-aux-Mines observatory (France). <i>Geophysical Journal International</i> , 2009, 178, 667-677.	2.4	30

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73	Local and global hydrological contributions to gravity variations observed in Strasbourg. Journal of Geodynamics, 2009, 48, 189-194.	1.6	56
74	Oceanic loading monitored by ground-based tiltmeters at Cherbourg (France). Journal of Geodynamics, 2009, 48, 211-218.	1.6	2
75	Modelling atmospheric and induced non-tidal oceanic loading contributions to surface gravity and tilt measurements. Journal of Geodynamics, 2009, 48, 182-188.	1.6	40
76	Physical Modelling To Remove Hydrological Effects At Local And Regional Scale: Application To The 100-M Hydrostatic Inclinometer In Sainte-Croix-Aux-Mines (France). International Association of Geodesy Symposia, 2009, , 533-539.	0.4	0
77	A silica long base tiltmeter with high stability and resolution. Review of Scientific Instruments, 2008, 79, 034502.	1.3	22
78	Extracting coherent regional information from local measurements with Karhunen-Loève transform: Case study of an alluvial aquifer (Rhine valley, France and Germany). Water Resources Research, 2007, 43, .	4.2	35
79	Local hydrology, the Global Geodynamics Project and CHAMP/GRACE perspective: some case studies. Journal of Geodynamics, 2004, 38, 355-374.	1.6	55
80	Results of the Sixth International Comparison of Absolute Gravimeters, ICAG-2001. Metrologia, 2002, 39, 407-424.	1.2	48