Laurent Longuevergne

List of Publications by Year
in descending order

80	9,250	87888 38	64796 79
papers	citations	h-index	g-index

118	118	118	9286
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ground water and climate change. Nature Climate Change, 2013, 3, 322-329.	18.8	1,513
2	Groundwater depletion and sustainability of irrigation in the US High Plains and Central Valley. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9320-9325.	7.1	951
3	The community Noah land surface model with multiparameterization options (Noah-MP): 2. Evaluation over global river basins. Journal of Geophysical Research, 2011, 116, .	3.3	475
4	Global sea-level budget 1993â€“present. Earth System Science Data, 2018, 10, 1551-1590.	9.9	409
5	Uncertainty in evapotranspiration from land surface modeling, remote sensing, and GRACE satellites. Water Resources Research, 2014, 50, 1131-1151.	4.2	394
6	Global models underestimate large decadal declining and rising water storage trends relative to GRACE satellite data. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E1080-E1089.	7.1	376
7	Global evaluation of new <scp>GRACE</scp> mascon products for hydrologic applications. Water Resources Research, 2016, 52, 9412-9429.	4.2	344
8	Substantial glacier mass loss in the Tien Shan over the past 50 years. Nature Geoscience, 2015, 8, 716-722.	12.9	332
9	Drought and flood monitoring for a large karst plateau in Southwest China using extended GRACE data. Remote Sensing of Environment, 2014, 155, 145-160.	11.0	321
10	Ground referencing GRACE satellite estimates of groundwater storage changes in the California Central Valley, USA. Water Resources Research, 2012, 48, .	4.2	317
11	GRACE satellite monitoring of large depletion in water storage in response to the 2011 drought in Texas. Geophysical Research Letters, 2013, 40, 3395-3401.	4.0	315
12	GRACE Hydrological estimates for small basins: Evaluating processing approaches on the High Plains Aquifer, USA. Water Resources Research, 2010, 46, .	4.2	258
13	Impact of transient groundwater storage on the discharge of Himalayan rivers. Nature Geoscience, 2012, 5, 127-132.	12.9	242
14	Global analysis of spatiotemporal variability in merged total water storage changes using multiple GRACE products and global hydrological models. Remote Sensing of Environment, 2017, 192, 198-216.	11.0	223
15	Global analysis of approaches for deriving total water storage changes from GRACE satellites. Water Resources Research, 2015, 51, 2574-2594.	4.2	179
16	Monitoring groundwater storage changes in the highly seasonal humid tropics: Validation of GRACE measurements in the Bengal Basin. Water Resources Research, 2012, 48, .	4.2	176
17	Incorporation of groundwater pumping in a global Land Surface Model with the representation of human impacts. Water Resources Research, 2015, 51, 78-96.	4.2	162
18	OZCAR: The French Network of Critical Zone Observatories. Vadose Zone Journal, 2018, 17, 1-24.	2.2	126

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19	GRACE water storage estimates for the Middle East and other regions with significant reservoir and lake storage. Hydrology and Earth System Sciences, 2013, 17, 4817-4830.	4.9	106
20	Interannual variability in water storage over 2003â€“2008 in the Amazon Basin from GRACE space gravimetry, in situ river level and precipitation data. Remote Sensing of Environment, 2010, 114, 1629-1637.	11.0	102
21	Quantitative mapping of groundwater depletion at the water management scale using a combined GRACE/InSAR approach. Remote Sensing of Environment, 2018, 205, 408-418.	11.0	94
22	Assessing Groundwater Depletion and Dynamics Using <scp>GRACE</scp> and <scp>InSAR</scp>: Potential and Limitations. Ground Water, 2016, 54, 768-780.	1.3	93
23	Recent La Plata basin drought conditions observed by satellite gravimetry. Journal of Geophysical Research, 2010, 115, .	3.3	91
24	Natural and human-induced terrestrial water storage change: A global analysis using hydrological models and GRACE. Journal of Hydrology, 2017, 553, 105-118.	5.4	90
25	Does GRACE see the terrestrial water cycle â€œintensifyingâ€?. Journal of Geophysical Research D: Atmospheres, 2016, 121, 733-745.	3.3	87
26	Science and User Needs for Observing Global Mass Transport to Understand Global Change and to Benefit Society. Surveys in Geophysics, 2015, 36, 743-772.	4.6	79
27	Multivariate Prediction of Total Water Storage Changes Over West Africa from Multi-Satellite Data. Surveys in Geophysics, 2014, 35, 913-940.	4.6	72
28	Monitoring ground water storage at mesoscale using seismic noise: 30 years of continuous observation and thermo-elastic and hydrological modeling. Scientific Reports, 2017, 7, 14241.	3.3	69
29	Temporal and spatial scaling of hydraulic response to recharge in fractured aquifers: Insights from a frequency domain analysis. Water Resources Research, 2013, 49, 3007-3023.	4.2	68
30	Nitrate dynamics in agricultural catchments deduced from groundwater dating and long-term nitrate monitoring in surfaceâ€•and groundwaters. Science of the Total Environment, 2012, 435-436, 167-178.	8.0	67
31	Local and global hydrological contributions to gravity variations observed in Strasbourg. Journal of Geodynamics, 2009, 48, 189-194.	1.6	56
32	Local hydrology, the Global Geodynamics Project and CHAMP/GRACE perspective: some case studies. Journal of Geodynamics, 2004, 38, 355-374.	1.6	55
33	Calibration and evaluation of a semi-distributed watershed model of Sub-Saharan Africa using GRACE data. Hydrology and Earth System Sciences, 2012, 16, 3083-3099.	4.9	54
34	Results of the Sixth International Comparison of Absolute Gravimeters, ICAG-2001. Metrologia, 2002, 39, 407-424.	1.2	48
35	Hydrological behavior of a deep sub-vertical fault in crystalline basement and relationships with surrounding reservoirs. Journal of Hydrology, 2014, 509, 42-54.	5.4	48
36	Assessing modern river sediment discharge to the ocean using satellite gravimetry. Nature Communications, 2018, 9, 3384.	12.8	48

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37	Recent changes in terrestrial water storage in the Upper Nile Basin: an evaluation of commonly used gridded GRACE products. Hydrology and Earth System Sciences, 2017, 21, 4533-4549.	4.9	43
38	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
39	Efficient basin scale filtering of GRACE satellite products. Remote Sensing of Environment, 2018, 204, 76-93.	11.0	38
40	Extracting coherent regional information from local measurements with Karhunen-LoÃ¨ve transform: Case study of an alluvial aquifer (Rhine valley, France and Germany). Water Resources Research, 2007, 43, .	4.2	35
41	Mapping probabilities of extreme continental water storage changes from space gravimetry. Geophysical Research Letters, 2016, 43, 8026-8034.	4.0	34
42	Tilt and strain deformation induced by hydrologically active natural fractures: application to the tiltmeters installed in Sainte-Croix-aux-Mines observatory (France). Geophysical Journal International, 2009, 178, 667-677.	2.4	30
43	Glacial Melt and Potential Impacts on Water Resources in the Canadian Rocky Mountains. Water Resources Research, 2019, 55, 10191-10217.	4.2	29
44	2D characterization of nearâ€surface : surfaceâ€wave dispersion inversion versus refraction tomography. Near Surface Geophysics, 2015, 13, 315-332.	1.2	28
45	Assessment of the impacts of climate variability on total water storage across Africa: implications for groundwater resources management. Hydrogeology Journal, 2019, 27, 493-512.	2.1	28
46	Sediment transfer and the hydrological cycle of Himalayan rivers in Nepal. Comptes Rendus - Geoscience, 2012, 344, 627-635.	1.2	27
47	Numerical and Experimental Validation of the Applicability of Activeâ€DTS Experiments to Estimate Thermal Conductivity and Groundwater Flux in Porous Media. Water Resources Research, 2021, 57, .	4.2	27
48	Field Test of the Superconducting Gravimeter as a Hydrologic Sensor. Ground Water, 2012, 50, 442-449.	1.3	24
49	Assessing the water balance of the Upper Rhine Graben hydrosystem. Journal of Hydrology, 2012, 424-425, 68-83.	5.4	24
50	A silica long base tiltmeter with high stability and resolution. Review of Scientific Instruments, 2008, 79, 034502.	1.3	22
51	Contribution of the finite volume point dilution method for measurement of groundwater fluxes in a fractured aquifer. Journal of Contaminant Hydrology, 2015, 182, 244-255.	3.3	22
52	New insights on fractures deformation from tiltmeter data measured inside the Fontaine de Vaucluse karst system. Geophysical Journal International, 2017, 208, 1389-1402.	2.4	22
53	A Comparison of Different Methods to Estimate the Effective Spatial Resolution of FO-DTS Measurements Achieved during Sandbox Experiments. Sensors, 2020, 20, 570.	3.8	22
54	Mechanical Response of Shallow Crust to Groundwater Storage Variations: Inferences From Deformation and Seismic Observations in the Eastern Southern Alps, Italy. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB020586.	3.4	20

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55	Investigating the respective impacts of groundwater exploitation and climate change on wetland extension over 150 years. Journal of Hydrology, 2014, 509, 367-378.	5.4	19
56	Time-Lapse Seismic and Electrical Monitoring of the Vadose Zone during a Controlled Infiltration Experiment at the Ploemeur Hydrological Observatory, France. Water (Switzerland), 2020, 12, 1230.	2.7	19
57	Typhoonâ€induced Ground Deformation. Geophysical Research Letters, 2017, 44, 11,004.	4.0	18
58	Inferring fieldâ€scale properties of a fractured aquifer from ground surface deformation during a well test. Geophysical Research Letters, 2015, 42, 10,696.	4.0	17
59	The AquiFR hydrometeorological modelling platform as a tool for improving groundwater resource monitoring over France: evaluation over a 60-year period. Hydrology and Earth System Sciences, 2020, 24, 633-654.	4.9	16
60	Autotrophic denitrification supported by biotite dissolution in crystalline aquifers: (2) transient mixing and denitrification dynamic during long-term pumping. Science of the Total Environment, 2018, 619-620, 491-503.	8.0	15
61	Integrating groundwater irrigation into hydrological simulation of India: Case of improving model representation of anthropogenic water use impact using GRACE. Journal of Hydrology: Regional Studies, 2020, 29, 100681.	2.4	15
62	New Estimates of Variations in Water Flux and Storage over Europe Based on Regional (Re)Analyses and Multisensor Observations. Journal of Hydrometeorology, 2014, 15, 2397-2417.	1.9	14
63	Combining periodic hydraulic tests and surface tilt measurements to explore in situ fracture hydromechanics. Journal of Geophysical Research: Solid Earth, 2017, 122, 6046-6066.	3.4	14
64	Estimating picking errors in nearâ€surface seismic data to enable their timeâ€lapse interpretation of hydrosystems. Near Surface Geophysics, 2018, 16, 613-625.	1.2	14
65	Deep mass redistribution prior to the 2010 Mw 8.8 Maule (Chile) Earthquake revealed by GRACE satellite gravity. Earth and Planetary Science Letters, 2022, 584, 117465.	4.4	13
66	Mass variation observing system by high low inter-satellite links (MOBILE) â€“ a new concept for sustained observation of mass transport from space. Journal of Geodetic Science, 2019, 9, 48-58.	1.0	12
67	RECOG RL01: correcting GRACE total water storage estimates for global lakes/reservoirs and earthquakes. Earth System Science Data, 2021, 13, 2227-2244.	9.9	11
68	Understanding the Hydromechanical Behavior of a Fault Zone From Transient Surface Tilt and Fluid Pressure Observations at Hourly Time Scales. Water Resources Research, 2017, 53, 10558-10582.	4.2	10
69	Monitoring of groundwater redistribution in a karst aquifer using a superconducting gravimeter. E3S Web of Conferences, 2019, 88, 03001.	0.5	9
70	Understanding the Geodetic Signature of Large Aquifer Systems: Example of the Ozark Plateaus in Central United States. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	9
71	Neotectonics and current hydrologically-induced karst deformation. Case study of the Plateau de Calern (Alpes-Maritimes, France). Geodinamica Acta, 2010, 23, 49-64.	2.2	7
72	Quantifying sediment mass redistribution from joint time-lapse gravimetry and photogrammetry surveys. Earth Surface Dynamics, 2020, 8, 555-577.	2.4	6

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73	Combining passive and active distributed temperature sensing measurements to locate and quantify groundwater discharge variability into a headwater stream. Hydrology and Earth System Sciences, 2022, 26, 1459-1479.	4.9	6
74	Individual and joint inversion of head and flux data by geostatistical hydraulic tomography. Advances in Water Resources, 2021, 154, 103960.	3.8	5
75	Dipole and Convergent Single-Well Thermal Tracer Tests for Characterizing the Effect of Flow Configuration on Thermal Recovery. Geosciences (Switzerland), 2019, 9, 440.	2.2	4
76	Modelling borehole flows from Distributed Temperature Sensing data to monitor groundwater dynamics in fractured media. Journal of Hydrology, 2021, 598, 126450.	5.4	4
77	Controls on Spatial and Temporal Patterns of Slope Deformation in an Alpine Valley. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2021JF006353.	2.8	4
78	Oceanic loading monitored by ground-based tiltmeters at Cherbourg (France). Journal of Geodynamics, 2009, 48, 211-218.	1.6	2
79	The Superconducting Gravimeter as a Field Instrument Applied to Hydrology. International Association of Geodesy Symposia, 2012, , 291-295.	0.4	0
80	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