

Andreas GÃ¼ntner

List of Publications by Year in descending order

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106
papers

5,393
citations

57758

44
h-index

88630

70
g-index

142
all docs

142
docs citations

142
times ranked

5115
citing authors

#	ARTICLE	IF	CITATIONS
1	The importance of vegetation in understanding terrestrial water storage variations. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 1089-1109.	4.9	8
2	Comparative analysis of throughfall observations in six different forest stands: Influence of seasons, rainfallâ€and stand characteristics. <i>Hydrological Processes</i> , 2022, 36, .	2.6	6
3	Soil moisture observation in a forested headwater catchment: combining a dense cosmic-ray neutron sensor network with roving and hydrogravimetry at the TERENO site WA¼stebach. <i>Earth System Science Data</i> , 2022, 14, 2501-2519.	9.9	9
4	Editorial: Innovative Methods for Non-invasive Monitoring of Hydrological Processes From Field to Catchment Scale. <i>Frontiers in Water</i> , 2021, 3, .	2.3	0
5	Closing the Water Cycle from Observations across Scales: Where Do We Stand?. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E1897-E1935.	3.3	31
6	Delayed subsidence of the Dead Sea shore due to hydro-meteorological changes. <i>Scientific Reports</i> , 2021, 11, 13518.	3.3	8
7	Fieldâ€Scale Subsurface Flow Processes Inferred From Continuous Gravity Monitoring During a Sprinkling Experiment. <i>Water Resources Research</i> , 2021, 57, e2021WR030044.	4.2	3
8	Environmental and anthropogenic gravity contributions at the Åžeistareykir geothermal field, North Iceland. <i>Geothermal Energy</i> , 2021, 9, .	1.9	3
9	Towards disentangling heterogeneous soil moisture patterns in cosmic-ray neutron sensor footprints. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 6547-6566.	4.9	12
10	On the Use of Satellite Remote Sensing to Detect Floods and Droughts at Large Scales. <i>Surveys in Geophysics</i> , 2020, 41, 1461-1487.	4.6	33
11	Projected Changes in Compound Flood Hazard From Riverine and Coastal Floods in Northwestern Europe. <i>Earth's Future</i> , 2020, 8, e2020EF001752.	6.3	31
12	Performance of three iGrav superconducting gravity meters before and after transport to remote monitoring sites. <i>Geophysical Journal International</i> , 2020, 223, 959-972.	2.4	10
13	Estimating the specific yield of the Pampeano aquifer, Argentina, using superconducting gravimeter data. <i>Hydrogeology Journal</i> , 2020, 28, 2303-2313.	2.1	7
14	Forecasting terrestrial water storage for drought management in Ethiopia. <i>Hydrological Sciences Journal</i> , 2020, 65, 2210-2223.	2.6	9
15	Quantifying the Central European Droughts in 2018 and 2019 With GRACE Followâ€On. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087285.	4.0	89
16	A dense network of cosmic-ray neutron sensors for soil moisture observation in a highly instrumented pre-Alpine headwater catchment in Germany. <i>Earth System Science Data</i> , 2020, 12, 2289-2309.	9.9	44
17	Forecast of seasonal water availability in Central Asia with near-real time GRACE water storage anomalies. <i>Environmental Research Communications</i> , 2019, 1, 031006.	2.3	5
18	Reducing gravity data for the influence of water storage variations beneath observatory buildings. <i>Geophysics</i> , 2019, 84, EN15-EN31.	2.6	22

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19	European Gravity Service for Improved Emergency Management (EGSIEM) “from concept to implementation. <i>Geophysical Journal International</i> , 2019, 218, 1572-1590.	2.4	27
20	Resolving Geophysical Signals by Terrestrial Gravimetry: A Time Domain Assessment of the Correction-Induced Uncertainty. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 2153-2165.	3.4	13
21	Mass variation observing system by high low inter-satellite links (MOBILE) “ a new concept for sustained observation of mass transport from space. <i>Journal of Geodetic Science</i> , 2019, 9, 48-58.	1.0	12
22	The spatio-temporal variability of groundwater storage in the Amazon River Basin. <i>Advances in Water Resources</i> , 2019, 124, 41-52.	3.8	52
23	Detection of large-scale groundwater storage variability over the karstic regions in Southwest China. <i>Journal of Hydrology</i> , 2019, 569, 409-422.	5.4	39
24	Hydrometeorological and gravity signals at the Argentine-German Geodetic Observatory (AGGO) in La Plata. <i>Earth System Science Data</i> , 2019, 11, 1501-1513.	9.9	7
25	Increased water storage of Lake Qinghai during 2004–2012 from GRACE data, hydrological models, radar altimetry and in situ measurements. <i>Geophysical Journal International</i> , 2018, 212, 679-693.	2.4	15
26	Interdisciplinary Geo-ecological Research across Time Scales in the Northeast German Lowland Observatory (TERENO-NE). <i>Vadose Zone Journal</i> , 2018, 17, 1-25.	2.2	29
27	Daily GRACE gravity field solutions track major flood events in the Ganges–Brahmaputra Delta. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 2867-2880.	4.9	55
28	Water and sediment fluxes in Mediterranean mountainous regions: comprehensive dataset for hydro-sedimentological analyses and modelling in a mesoscale catchment (River Isábena, NE Spain). <i>Earth System Science Data</i> , 2018, 10, 1063-1075.	9.9	4
29	Landscape-scale water balance monitoring with an iGrav superconducting gravimeter in a field enclosure. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 3167-3182.	4.9	36
30	Fifteen Years (1993–2007) of Surface Freshwater Storage Variability in the Ganges-Brahmaputra River Basin Using Multi-Satellite Observations. <i>Water (Switzerland)</i> , 2017, 9, 245.	2.7	14
31	Validation of terrestrial water storage variations as simulated by different global numerical models with GRACE satellite observations. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 821-837.	4.9	43
32	Use of cosmic-ray neutron sensors for soil moisture monitoring in forests. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 1269-1288.	4.9	58
33	Water Budget Analysis within the Surrounding of Prominent Lakes and Reservoirs from Multi-Sensor Earth Observation Data and Hydrological Models: Case Studies of the Aral Sea and Lake Mead. <i>Remote Sensing</i> , 2016, 8, 953.	4.0	11
34	Modelling of global mass effects in hydrology, atmosphere and oceans on surface gravity. <i>Computers and Geosciences</i> , 2016, 93, 12-20.	4.2	25
35	Modelling Freshwater Resources at the Global Scale: Challenges and Prospects. <i>Space Sciences Series of ISSI</i> , 2016, , 5-31.	0.0	4
36	Long-term groundwater storage change in Victoria, Australia from satellite gravity and in situ observations. <i>Global and Planetary Change</i> , 2016, 139, 56-65.	3.5	95

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37	Monitoring Snow Depth by GNSS Reflectometry in Built-up Areas: A Case Study for Wettzell, Germany. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 4809-4816.	4.9	26
38	Modelling Freshwater Resources at the Global Scale: Challenges and Prospects. Surveys in Geophysics, 2016, 37, 195-221.	4.6	100
39	What Can be Expected from the GRACE-FO Laser Ranging Interferometer for Earth Science Applications?. Surveys in Geophysics, 2016, 37, 453-470.	4.6	139
40	Long-term soil moisture dynamics derived from GNSS interferometric reflectometry: a case study for Sutherland, South Africa. GPS Solutions, 2016, 20, 641-654.	4.3	49
41	What Can be Expected from the GRACE-FO Laser Ranging Interferometer for Earth Science Applications?. Space Sciences Series of ISSI, 2016, , 263-280.	0.0	12
42	Attribution of streamflow trends in snow and glacier melt-dominated catchments of the Taimyr, Central Asia. Water Resources Research, 2015, 51, 4727-4750.	4.2	146
43	Emerging methods for noninvasive sensing of soil moisture dynamics from field to catchment scale: a review. Wiley Interdisciplinary Reviews: Water, 2015, 2, 635-647.	6.5	86
44	Droughts and Floods in the La Plata Basin in Soil Moisture Data and GRACE. Remote Sensing, 2015, 7, 7324-7349.	4.0	63
45	Hydrological and sedimentological processes of flood layer formation in Lake Mondsee. Depositional Record, 2015, 1, 18-37.	1.7	19
46	Substantial glacier mass loss in the Tien Shan over the past 50 years. Nature Geoscience, 2015, 8, 716-722.	12.9	332
47	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
48	Process-based modelling of erosion, sediment transport and reservoir siltation in mesoscale semi-arid catchments. Journal of Soils and Sediments, 2014, 14, 2001-2018.	3.0	37
49	Connectivity of sediment transport in a semiarid environment: a synthesis for the Upper Jaguaribe Basin, Brazil. Journal of Soils and Sediments, 2014, 14, 1938-1948.	3.0	31
50	Sedimentation in the floodplains of the Mekong Delta, Vietnam Part II: deposition and erosion. Hydrological Processes, 2014, 28, 3145-3160.	2.6	46
51	Sedimentation in the floodplains of the Mekong Delta, Vietnam. Part I: suspended sediment dynamics. Hydrological Processes, 2014, 28, 3132-3144.	2.6	31
52	The value of satellite-derived snow cover images for calibrating a hydrological model in snow-dominated catchments in Central Asia. Water Resources Research, 2014, 50, 2002-2021.	4.2	77
53	Comparison of Daily GRACE Gravity Field and Numerical Water Storage Models for De-aliasing of Satellite Gravimetry Observations. Surveys in Geophysics, 2014, 35, 1251-1266.	4.6	8
54	Storage-discharge relationships at different catchment scales based on local high-precision gravimetry. Hydrological Processes, 2014, 28, 1465-1475.	2.6	39

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55	Direct measurement of subsurface mass change using the variable baseline gravity gradient method. <i>Geophysical Research Letters</i> , 2014, 41, 2827-2834.	4.0	47
56	Surface freshwater storage and variability in the Amazon basin from multi-satellite observations, 1993-2007. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 11,951.	3.3	47
57	Estimation of soil loss by water erosion in the Chinese Loess Plateau using Universal Soil Loss Equation and GRACE. <i>Geophysical Journal International</i> , 2013, 193, 1283-1290.	2.4	20
58	Die Surfer im Erdschwerefeld. <i>Physik in Unserer Zeit</i> , 2013, 44, 286-292.	0.0	0
59	Evaluation of areal precipitation estimates based on downscaled reanalysis and station data by hydrological modelling. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 2415-2434.	4.9	68
60	A Buoy for Continuous Monitoring of Suspended Sediment Dynamics. <i>Sensors</i> , 2013, 13, 13779-13801.	3.8	10
61	Total water storage dynamics in response to climate variability and extremes: Inference from long-term terrestrial gravity measurement. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	44
62	A comparison of GRACE-derived temporal gravity variations with observations of six European superconducting gravimeters. <i>Geophysical Journal International</i> , 2012, 191, 545-556.	2.4	14
63	Tackling mass redistribution phenomena by time-dependent GRACE- and terrestrial gravity observations. <i>Journal of Geodynamics</i> , 2012, 59-60, 82-91.	1.6	17
64	Hydrological Impact of a High-Density Reservoir Network in Semiarid Northeastern Brazil. <i>Journal of Hydrologic Engineering - ASCE</i> , 2012, 17, 109-117.	1.9	80
65	Relación de la variación del almacenamiento de agua local y el gravímetro superconductor en el Observatorio Geodésico TIGO, Concepción, Chile. <i>Obras Y Proyectos</i> , 2012, , 71-78.	0.2	2
66	Signals of Mass Redistribution at the South African Gravimeter Site SAGOS. <i>International Association of Geodesy Symposia</i> , 2012, , 305-313.	0.4	0
67	Satellite-based estimates of groundwater storage variations in large drainage basins with extensive floodplains. <i>Remote Sensing of Environment</i> , 2011, 115, 1588-1594.	11.0	71
68	Reducing local hydrology from high-precision gravity measurements: a lysimeter-based approach. <i>Geophysical Journal International</i> , 2010, 183, 178-187.	2.4	48
69	Modelling sediment export, retention and reservoir sedimentation in drylands with the WASA-SED model. <i>Geoscientific Model Development</i> , 2010, 3, 275-291.	3.6	31
70	Calibration analysis for water storage variability of the global hydrological model WGHM. <i>Hydrology and Earth System Sciences</i> , 2010, 14, 59-78.	4.9	90
71	The benefits of gravimeter observations for modelling water storage changes at the field scale. <i>Hydrology and Earth System Sciences</i> , 2010, 14, 1715-1730.	4.9	35
72	Modelling spatio-temporal patterns of sediment yield and connectivity in a semi-arid catchment with the WASA-SED model. <i>Hydrological Sciences Journal</i> , 2010, 55, 636-648.	2.6	59

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73	Interannual variations of the terrestrial water storage in the Lower Ob' Basin from a multisatellite approach. <i>Hydrology and Earth System Sciences</i> , 2010, 14, 2443-2453.	4.9	40
74	Measuring the effect of local water storage changes on in situ gravity observations: Case study of the Geodetic Observatory Wettzell, Germany. <i>Water Resources Research</i> , 2010, 46, .	4.2	52
75	Terrestrial water budget of the Eurasian pan-Arctic from GRACE satellite measurements during 2003-2009. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	94
76	Recent hydrological behavior of the East African great lakes region inferred from GRACE, satellite altimetry and rainfall observations. <i>Comptes Rendus - Geoscience</i> , 2010, 342, 223-233.	1.2	126
77	Calibration of a Global Hydrological Model global hydrological model with GRACE Data. <i>Advanced Technologies in Earth Sciences</i> , 2010, , 417-426.	0.9	0
78	Continental Water Storage Variations from GRACE Time-Variable Gravity Data. <i>Advanced Technologies in Earth Sciences</i> , 2010, , 369-375.	0.9	1
79	Evaluation of GRACE filter tools from a hydrological perspective. <i>Geophysical Journal International</i> , 2009, 179, 1499-1515.	2.4	99
80	Integration of GRACE mass variations into a global hydrological model. <i>Earth and Planetary Science Letters</i> , 2009, 277, 166-173.	4.4	108
81	Spatiotemporal variations of soil surface roughness from in-situ laser scanning. <i>Catena</i> , 2009, 79, 128-139.	5.0	64
82	Time series of superconducting gravimeters and water storage variations from the global hydrology model WGHM. <i>Journal of Geodynamics</i> , 2009, 48, 166-171.	1.6	10
83	Thriving and declining: climate variability shaping life-history and population persistence of <i>Mesodesma donacium</i> in the Humboldt Upwelling System. <i>Marine Ecology - Progress Series</i> , 2009, 385, 151-163.	1.9	47
84	Improvement of Global Hydrological Models Using GRACE Data. <i>Surveys in Geophysics</i> , 2008, 29, 375-397.	4.6	138
85	Spatial and temporal variations of actual soil water repellency and their influence on surface runoff. <i>Hydrological Processes</i> , 2008, 22, 1976-1984.	2.6	34
86	Periodic components of water storage changes from GRACE and global hydrology models. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	77
87	Variations of surface water extent and water storage in large river basins: A comparison of different global data sources. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	79
88	Automated catena-based discretization of landscapes for the derivation of hydrological modelling units. <i>International Journal of Geographical Information Science</i> , 2008, 22, 111-132.	4.8	30
89	Simulating the influence of water storage changes on the superconducting gravimeter of the Geodetic Observatory Wettzell, Germany. <i>Geophysics</i> , 2008, 73, WA95-WA104.	2.6	74
90	A global analysis of temporal and spatial variations in continental water storage. <i>Water Resources Research</i> , 2007, 43, .	4.2	158

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91	Supporting large-scale hydrogeological monitoring and modelling by time-variable gravity data. <i>Hydrogeology Journal</i> , 2007, 15, 167-170.	2.1	28
92	GRACE Time-Variable Gravity Accuracy Assessment. , 2007, , 237-243.		8
93	Loss of reservoir volume by sediment deposition and its impact on water availability in semiarid Brazil. <i>Hydrological Sciences Journal</i> , 2006, 51, 157-170.	2.6	99
94	Time variations of the regional evapotranspiration rate from Gravity Recovery and Climate Experiment (GRACE) satellite gravimetry. <i>Water Resources Research</i> , 2006, 42, .	4.2	133
95	GRACE observations of changes in continental water storage. <i>Global and Planetary Change</i> , 2006, 50, 112-126.	3.5	204
96	Integrated modelling of climate, water, soil, agricultural and socio-economic processes: A general introduction of the methodology and some exemplary results from the semi-arid north-east of Brazil. <i>Journal of Hydrology</i> , 2006, 328, 417-431.	5.4	61
97	Time variations of land water storage from an inversion of 2 years of GRACE geoids. <i>Earth and Planetary Science Letters</i> , 2005, 235, 283-301.	4.4	183
98	Simple water balance modelling of surface reservoir systems in a large data-scarce semiarid region / Modélisation simple du bilan hydrologique de systèmes de réservoirs de surface dans une grande région semi-aride pauvre en données. <i>Hydrological Sciences Journal</i> , 2004, 49, .	2.6	69
99	Time Variation In Hydrology and Gravity. <i>Earth, Moon and Planets</i> , 2004, 94, 41-55.	0.6	3
100	Modeling spatial patterns of saturated areas: An evaluation of different terrain indices. <i>Water Resources Research</i> , 2004, 40, .	4.2	107
101	Water Scarcity Under Scenarios for Global Climate Change and Regional Development in Semiarid Northeastern Brazil. <i>Water International</i> , 2004, 29, 209-220.	1.0	37
102	Representation of landscape variability and lateral redistribution processes for large-scale hydrological modelling in semi-arid areas. <i>Journal of Hydrology</i> , 2004, 297, 136-161.	5.4	99
103	Cascade-based disaggregation of continuous rainfall time series: the influence of climate. <i>Hydrology and Earth System Sciences</i> , 2001, 5, 145-164.	4.9	101
104	Integrated modelling of water availability and water use in the semi-arid Northeast of Brazil. <i>Physics and Chemistry of the Earth</i> , 2000, 25, 227-232.	0.3	28
105	Multi-criterial validation of TOPMODEL in a mountainous catchment. <i>Hydrological Processes</i> , 1999, 13, 1603-1620.	2.6	93
106	ENSO impact on simulated South American hydro-climatology. <i>Advances in Geosciences</i> , 0, 6, 227-236.	12.0	4