G J M De Lannoy

List of Publications by Year
in descending order

79 papers	6,119 citations	71102 41 h-index	74163 75 g-index
83 all docs	83 docs citations	83 times ranked	4841 citing authors

#	Article	IF	Citations
1	Sentinel-1 snow depth retrieval at sub-kilometer resolution over the European Alps. Cryosphere, 2022, 16, 159-177.	3.9	43
2	Tropical Peatland Hydrology Simulated With a Global Land Surface Model. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	9
3	SMOS-IC data record of soil moisture and L-VOD: Historical development, applications and perspectives. Remote Sensing of Environment, 2021, 254, 112238.	11.0	124
4	The Contributions of Gauge-Based Precipitation and SMAP Brightness Temperature Observations to the Skill of the SMAP Level-4 Soil Moisture Product. Journal of Hydrometeorology, 2021, 22, 405-424.	1.9	20
5	The benefit of brightness temperature assimilation for the SMAP Level-4 surface and root-zone soil moisture analysis. Hydrology and Earth System Sciences, 2021, 25, 1569-1586.	4.9	12
6	Global Soil Water Estimates as Landslide Predictor: The Effectiveness of SMOS, SMAP, and GRACE Observations, Land Surface Simulations, and Data Assimilation. Journal of Hydrometeorology, 2021, 22, 1065-1084.	1.9	16
7	Land surface modeling over the Dry Chaco: the impact of model structures, and soil, vegetation and land cover parameters. Hydrology and Earth System Sciences, 2021, 25, 4099-4125.	4.9	10
8	Reanalysis in Earth System Science: Toward Terrestrial Ecosystem Reanalysis. Reviews of Geophysics, 2021, 59, e2020RG000715.	23.0	24
9	A first assessment of satellite and reanalysis estimates of surface and root-zone soil moisture over the permafrost region of Qinghai-Tibet Plateau. Remote Sensing of Environment, 2021, 265, 112666.	11.0	64
10	A Review of Irrigation Information Retrievals from Space and Their Utility for Users. Remote Sensing, 2021, 13, 4112.	4.0	76
11	Performance analysis of regional AquaCrop (v6.1) biomass and surface soil moisture simulations using satellite and in situ observations. Geoscientific Model Development, 2021, 14, 7309-7328.	3.6	8
12	Optimizing a backscatter forward operator using Sentinel-1 data over irrigated land. Hydrology and Earth System Sciences, 2021, 25, 6283-6307.	4.9	14
13	SHui, an EU-Chinese cooperative project to optimize soil and water management in agricultural areas in the XXI century. International Soil and Water Conservation Research, 2020, 8, 1-14.	6.5	5
14	Sentinelâ€1 Detects Firn Aquifers in the Greenland Ice Sheet. Geophysical Research Letters, 2020, 47, e2019GL085192.	4.0	17
15	Evaluation of GEOS-Simulated L-Band Microwave Brightness Temperature Using Aquarius Observations over Non-Frozen Land across North America. Remote Sensing, 2020, 12, 3098.	4.0	0
16	Satellite Determination of Peatland Water Table Temporal Dynamics by Localizing Representative Pixels of A SWIR-Based Moisture Index. Remote Sensing, 2020, 12, 2936.	4.0	16
17	Validation practices for satellite soil moisture retrievals: What are (the) errors?. Remote Sensing of Environment, 2020, 244, 111806.	11.0	164
18	A Comparison of Three Trapezoid Models Using Optical and Thermal Satellite Imagery for Water Table Depth Monitoring in Estonian Bogs. Remote Sensing, 2020, 12, 1980.	4.0	14

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19	Improving Soil Moisture and Surface Turbulent Heat Flux Estimates by Assimilation of SMAP Brightness Temperatures or Soil Moisture Retrievals and GOES Land Surface Temperature Retrievals. Journal of Hydrometeorology, 2020, 21, 183-203.	1.9	12
20	PEATâ€CLSM: A Specific Treatment of Peatland Hydrology in the NASA Catchment Land Surface Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 2130-2162.	3.8	40
21	Version 4 of the SMAP Levelâ€4 Soil Moisture Algorithm and Data Product. Journal of Advances in Modeling Earth Systems, 2019, 11, 3106-3130.	3.8	104
22	Global GRACE Data Assimilation for Groundwater and Drought Monitoring: Advances and Challenges. Water Resources Research, 2019, 55, 7564-7586.	4.2	229
23	Uncertainty in soil moisture retrievals: An ensemble approach using SMOS L-band microwave data. Remote Sensing of Environment, 2019, 229, 133-147.	11.0	13
24	A Monte Carlo based adaptive Kalman filtering framework for soil moisture data assimilation. Remote Sensing of Environment, 2019, 228, 105-114.	11.0	26
25	Assessment and inter-comparison of recently developed/reprocessed microwave satellite soil moisture products using ISMN ground-based measurements. Remote Sensing of Environment, 2019, 224, 289-303.	11.0	145
26	A Dielectric Mixing Model Accounting for Soil Organic Matter. Vadose Zone Journal, 2019, 18, 190036.	2.2	24
27	Assimilation of MODIS Snow Cover Fraction Observations into the NASA Catchment Land Surface Model. Remote Sensing, 2018, 10, 316.	4.0	32
28	Inferring Water Table Depth Dynamics from ENVISAT-ASAR C-Band Backscatter over a Range of Peatlands from Deeply-Drained to Natural Conditions. Remote Sensing, 2018, 10, 536.	4.0	34
29	SMOS and SMAP Brightness Temperature Assimilation Over the Murrumbidgee Basin. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 1652-1656.	3.1	3
30	Modelling the passive microwave signature from land surfaces: A review of recent results and application to the L-band SMOS & SMAP soil moisture retrieval algorithms. Remote Sensing of Environment, 2017, 192, 238-262.	11.0	323
31	Benefits and pitfalls of GRACE data assimilation: A case study of terrestrial water storage depletion in India. Geophysical Research Letters, 2017, 44, 4107-4115.	4.0	102
32	Joint Sentinelâ€1 and SMAP data assimilation to improve soil moisture estimates. Geophysical Research Letters, 2017, 44, 6145-6153.	4.0	111
33	Evaluating soil moisture retrievals from ESA's SMOS and NASA's SMAP brightness temperature datasets. Remote Sensing of Environment, 2017, 193, 257-273.	11.0	90
34	Assessment of MERRA-2 Land Surface Hydrology Estimates. Journal of Climate, 2017, 30, 2937-2960.	3.2	243
35	Global Assessment of the SMAP Level-4 Surface and Root-Zone Soil Moisture Product Using Assimilation Diagnostics. Journal of Hydrometeorology, 2017, 18, 3217-3237.	1.9	101
36	Assessment of the SMAP Level-4 Surface and Root-Zone Soil Moisture Product Using In Situ Measurements. Journal of Hydrometeorology, 2017, 18, 2621-2645.	1.9	196

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37	SMOS-IC: An Alternative SMOS Soil Moisture and Vegetation Optical Depth Product. Remote Sensing, 2017, 9, 457.	4.0	195
38	A new calibration of the effective scattering albedo and soil roughness parameters in the SMOS SM retrieval algorithm. International Journal of Applied Earth Observation and Geoinformation, 2017, 62, 27-38.	2.8	44
39	Assimilation of SMOS brightness temperatures or soil moisture retrievals into a land surface model. Hydrology and Earth System Sciences, 2016, 20, 4895-4911.	4.9	105
40	Assimilation of Gridded GRACE Terrestrial Water Storage Estimates in the North American Land Data Assimilation System. Journal of Hydrometeorology, 2016, 17, 1951-1972.	1.9	137
41	Precipitation estimation using <scp>L</scp>â€band and <scp>C</scp>â€band soil moisture retrievals. Water Resources Research, 2016, 52, 7213-7225.	4.2	76
42	SMAP Level 4 Surface and Root Zone Soil Moisture. , 2016, , .		25
43	Assimilation of gridded terrestrial water storage observations from GRACE into a land surface model. Water Resources Research, 2016, 52, 4164-4183.	4.2	100
44	Global Assimilation of Multiangle and Multipolarization SMOS Brightness Temperature Observations into the GEOS-5 Catchment Land Surface Model for Soil Moisture Estimation. Journal of Hydrometeorology, 2016, 17, 669-691.	1.9	112
45	Optimization of a Radiative Transfer Forward Operator for Simulating SMOS Brightness Temperatures over the Upper Mississippi Basin. Journal of Hydrometeorology, 2015, 16, 1109-1134.	1.9	29
46	Converting Between SMOS and SMAP Level-1 Brightness Temperature Observations Over Nonfrozen Land. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1908-1912.	3.1	34
47	Assimilation of Freezeâ€“Thaw Observations into the NASA Catchment Land Surface Model. Journal of Hydrometeorology, 2015, 16, 730-743.	1.9	16
48	A Dynamic Approach to Addressing Observation-Minus-Forecast Bias in a Land Surface Skin Temperature Data Assimilation System. Journal of Hydrometeorology, 2015, 16, 449-464.	1.9	18
49	Evaluation of the MODIS snow cover fraction product. Hydrological Processes, 2014, 28, 980-998.	2.6	55
50	An updated treatment of soil texture and associated hydraulic properties in a global land modeling system. Journal of Advances in Modeling Earth Systems, 2014, 6, 957-979.	3.8	103
51	Closing the Gaps in Our Knowledge of the Hydrological Cycle over Land: Conceptual Problems. Surveys in Geophysics, 2014, 35, 623-660.	4.6	58
52	Global-scale comparison of passive (SMOS) and active (ASCAT) satellite based microwave soil moisture retrievals with soil moisture simulations (MERRA-Land). Remote Sensing of Environment, 2014, 152, 614-626.	11.0	160
53	Connecting Satellite Observations with Water Cycle Variables Through Land Data Assimilation: Examples Using the NASA GEOS-5 LDAS. Surveys in Geophysics, 2014, 35, 577-606.	4.6	54
54	Improving particle filters in rainfallâ€runoff models: Application of the resampleâ€move step and the ensemble Gaussian particle filter. Water Resources Research, 2013, 49, 4005-4021.	4.2	25

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55	Impacts of snow cover fraction data assimilation on modeled energy and moisture budgets. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7489-7504.	3.3	26
56	Global Calibration of the GEOS-5 L-Band Microwave Radiative Transfer Model over Nonfrozen Land Using SMOS Observations. Journal of Hydrometeorology, 2013, 14, 765-785.	1.9	145
57	Simultaneous estimation of model state variables and observation and forecast biases using a two-stage hybrid Kalman filter. Hydrology and Earth System Sciences, 2013, 17, 3499-3521.	4.9	33
58	Potential soil moisture products from the aquarius radiometer and scatterometer using an observing system simulation experiment. Geoscientific Instrumentation, Methods and Data Systems, 2013, 2, 113-120.	1.6	8
59	Assimilation of passive and active microwave soil moisture retrievals. Geophysical Research Letters, 2012, 39, .	4.0	211
60	Multiscale assimilation of Advanced Microwave Scanning Radiometerâ€"EOS snow water equivalent and Moderate Resolution Imaging Spectroradiometer snow cover fraction observations in northern Colorado. Water Resources Research, 2012, 48, .	4.2	147
61	The importance of parameter resampling for soil moisture data assimilation into hydrologic models using the particle filter. Hydrology and Earth System Sciences, 2012, 16, 375-390.	4.9	66
62	Impact of soil hydraulic parameter uncertainty on soil moisture modeling. Water Resources Research, 2011, 47, .	4.2	30
63	Multivariate calibration of a water and energy balance model in the spectral domain. Water Resources Research, 2011, 47, .	4.2	12
64	The Contributions of Precipitation and Soil Moisture Observations to the Skill of Soil Moisture Estimates in a Land Data Assimilation System. Journal of Hydrometeorology, 2011, 12, 750-765.	1.9	135
65	Assimilating SAR-derived water level data into a hydraulic model: a case study. Hydrology and Earth System Sciences, 2011, 15, 2349-2365.	4.9	129
66	Observed and simulated water and energy budget components at SCAN sites in the lower Mississippi Basin. Hydrological Processes, 2011, 25, 634-649.	2.6	7
67	Assessment and Enhancement of MERRA Land Surface Hydrology Estimates. Journal of Climate, 2011, 24, 6322-6338.	3.2	409
68	Comparison of spectral and time domain calibration methods for precipitationâ€discharge processes. Hydrological Processes, 2010, 24, 1048-1062.	2.6	12
69	Towards the sequential assimilation of SAR-derived water stages into hydraulic models using the Particle Filter: proof of concept. Hydrology and Earth System Sciences, 2010, 14, 1773-1785.	4.9	133
70	Satellite-Scale Snow Water Equivalent Assimilation into a High-Resolution Land Surface Model. Journal of Hydrometeorology, 2010, 11, 352-369.	1.9	160
71	Adaptive Soil Moisture Profile Filtering for Horizontal Information Propagation in the Independent Column-Based CLM2.0. Journal of Hydrometeorology, 2009, 10, 766-779.	1.9	32
72	Ensembleâ€based assimilation of discharge into rainfallâ€runoff models: A comparison of approaches to mapping observational information to state space. Water Resources Research, 2009, 45, .	4.2	63

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73	Optimization of a coupled hydrology-crop growth model through the assimilation of observed soil moisture and leaf area index values using an ensemble Kalman filter. Water Resources Research, 2007, 43, .	4.2	104
74	State and bias estimation for soil moisture profiles by an ensemble Kalman filter: Effect of assimilation depth and frequency. Water Resources Research, 2007, 43, .	4.2	89
75	Correcting for forecast bias in soil moisture assimilation with the ensemble Kalman filter. Water Resources Research, 2007, 43, .	4.2	118
76	Assessment of model uncertainty for soil moisture through ensemble verification. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	87
77	Improvement of Modeled Soil Wetness Conditions and Turbulent Fluxes through the Assimilation of Observed Discharge. Journal of Hydrometeorology, 2006, 7, 458-477.	1.9	146
78	Calibration and state estimation with soil moisture data in a distributed hydrological model. Communications in Agricultural and Applied Biological Sciences, 2004, 69, 85-7.	0.0	0
79	Soil moisture retrieval through changing corn using active/passive microwave remote sensing. , 0, , .		5