Venkat Lakshmi

List of Publications by Year
in descending order

148 papers	7,150 citations	71102 41 h-index	64796 79 g-index
164 all docs	164 docs citations	164 times ranked	5885 citing authors

#	Article	IF	Citations
1	A global 1â€km downscaled SMAP soil moisture product based on thermal inertia theory. Vadose Zone Journal, 2022, 21, .	2.2	26
2	Estimation of Flood Inundation and Depth During Hurricane Florence Using Sentinel-1 and UAVSAR Data. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	1
3	Thermal Hydraulic Disaggregation of SMAP Soil Moisture Over the Continental United States. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 4072-4092.	4.9	6
4	Comparing Precipitation during Typhoons in the Western North Pacific Using Satellite and In Situ Observations. Remote Sensing, 2022, 14, 877.	4.0	3
5	Flood Depth Estimation during Hurricane Harvey Using Sentinel-1 and UAVSAR Data. Remote Sensing, 2022, 14, 1450.	4.0	6
6	Assimilation of SMAP Products for Improving Streamflow Simulations over Tropical Climate Regionâ€"Is Spatial Information More Important Than Temporal Information?. Remote Sensing, 2022, 14, 1607.	4.0	9
7	Assessment of drought conditions over Iraqi transboundary rivers using FLDAS and satellite datasets. Journal of Hydrology: Regional Studies, 2022, 41, 101075.	2.4	7
8	Doubling of annual forest carbon loss over the tropics during the early twenty-first century. Nature Sustainability, 2022, 5, 444-451.	23.7	47
9	A comprehensive assessment of SM2RAIN-NWF using ASCAT and a combination of ASCAT and SMAP soil moisture products for rainfall estimation. Science of the Total Environment, 2022, 838, 156416.	8.0	4
10	Quantifying the Economic Impact of the Grand Ethiopian Renaissance Dam on the Nile River Basin. , 2022, , .		0
11	Simulation of carbon dioxide mineralization and its effect on fault leakage rates in the South Georgia rift basin, southeastern U.S.. Heliyon, 2022, 8, e09635.	3.2	7
12	Land use, climate, and water change in the Vietnamese Mekong Delta (VMD) using earth observation and hydrological modeling. Journal of Hydrology: Regional Studies, 2022, 42, 101132.	2.4	7
13	Identifying relative strengths of SMAP, SMOS-IC, and ASCAT to capture temporal variability. Remote Sensing of Environment, 2021, 252, 112126.	11.0	25
14	Assessing Disaggregated SMAP Soil Moisture Products in the United States. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 2577-2592.	4.9	12
15	Very High Spatial Resolution Downscaled SMAP Radiometer Soil Moisture in the CONUS Using VIIRS/MODIS Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 4946-4965.	4.9	20
16	Assessment and Combination of SMAP and Sentinel-1A/B-Derived Soil Moisture Estimates With Land Surface Model Outputs in the Mid-Atlantic Coastal Plain, USA. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 991-1011.	6.3	8
17	An Assessment of the Filling Process of the Grand Ethiopian Renaissance Dam and Its Impact on the Downstream Countries. Remote Sensing, 2021, 13, 711.	4.0	23
18	Drought monitoring using high spatial resolution soil moisture data over Australia in 2015â€"2019. Journal of Hydrology, 2021, 594, 125960.	5.4	43

#	Article	IF	Citations
19	Evaluation of Global Surface Water Temperature Data Sets for Use in Passive Remote Sensing of Soil Moisture. Remote Sensing, 2021, 13, 1872.	4.0	6
20	Estimation of total water storage changes in India. International Journal of Digital Earth, 2021, 14, 1294-1315.	3.9	5
21	20 years of Vadose Zone Journal. Vadose Zone Journal, 2021, 20, e20141.	2.2	0
22	First attempt of global-scale assimilation of subdaily scale soil moisture estimates from CYGNSS and SMAP into a land surface model. Environmental Research Letters, 2021, 16, 074041.	5.2	18
23	Estimation of land-cover linkage to trends in hydrological variables of river basins in the Indian sub-continent using satellite observation and model outputs. Journal of Hydrology, 2021, 603, 126997.	5.4	8
24	Land cover and vegetation carbon stock changes in Greece: A 29-year assessment based on CORINE and Landsat land cover data. Science of the Total Environment, 2021, 786, 147408.	8.0	17
25	A Novel Method for Gaining New Insight on Flows Over Inundated Landscapes. Geophysical Research Letters, 2021, 48, e2021GL094190.	4.0	3
26	Estimating Local-Scale Groundwater Withdrawals Using Integrated Remote Sensing Products and Deep Learning. , 2021, , .		1
27	A Spatial Downscaling Methodology for GRACE Total Water Storage Anomalies Using GPM IMERG Precipitation Estimates. Remote Sensing, 2021, 13, 5149.	4.0	14
28	Application of Soil Water Assessment Tool (SWAT) Model in Analyzing Nitrogen Transport Inside the Narmada River Basin. Frontiers in Water, 2021, 3, .	2.3	0
29	The Reliability of Global Remote Sensing Evapotranspiration Products over Amazon. Remote Sensing, 2020, 12, 2211.	4.0	23
30	Intermittent Channel Systems of a Lowâ€Relief, Lowâ€Gradient Floodplain: Comparison of Automatic Extraction Methods. Water Resources Research, 2020, 56, e2020WR027603.	4.2	7
31	Groundwater Withdrawal Prediction Using Integrated Multitemporal Remote Sensing Data Sets and Machine Learning. Water Resources Research, 2020, 56, e2020WR028059.	4.2	40
32	Global scale error assessments of soil moisture estimates from microwave-based active and passive satellites and land surface models over forest and mixed irrigated/dryland agriculture regions. Remote Sensing of Environment, 2020, 251, 112052.	11.0	63
33	Assessment of drought conditions over Vietnam using standardized precipitation evapotranspiration index, MERRA-2 re-analysis, and dynamic land cover. Journal of Hydrology: Regional Studies, 2020, 32, 100767.	2.4	17
34	Large Uncertainty on Forest Area Change in the Early 21st Century among Widely Used Global Land Cover Datasets. Remote Sensing, 2020, 12, 3502.	4.0	24
35	Evaluation and validation of a high spatial resolution satellite soil moisture product over the Continental United States. Journal of Hydrology, 2020, 588, 125043.	5.4	32
36	Earth Observation and Cloud Computing in Support of Two Sustainable Development Goals for the River Nile Watershed Countries. Remote Sensing, 2020, 12, 1391.	4.0	18

#	Article	IF	Citations
37	Very high resolution, altitude-corrected, TMPA-based monthly satellite precipitation product over the CONUS. Scientific Data, 2020, 7, 74.	5.3	10
38	Adequacy of Satellite-derived Precipitation Estimate for Hydrological Modeling in Vietnam Basins. Journal of Hydrology, 2020, 586, 124820.	5.4	80
39	Field evaluation of portable soil water content sensors in a sandy loam. Vadose Zone Journal, 2020, 19, e20033.	2.2	15
40	Downscaling of SMAP Soil Moisture in the Lower Mekong River Basin. Water (Switzerland), 2020, 12, 56.	2.7	25
41	Mapping Land Use Land Cover Change in the Lower Mekong Basin From 1997 to 2010. Frontiers in Environmental Science, 2020, 8, .	3.3	45
42	Web-based decision support system tools: The Soil and Water Assessment Tool Online visualization and analyses (SWATOnline) and NASA earth observation data downloading and reformatting tool (NASAaccess). Environmental Modelling and Software, 2019, 120, 104499.	4.5	29
43	Atlantic Ocean Sea Surface Temperatures and Southeast United States streamflow variability: Associations with the recent multi-decadal decline. Journal of Hydrology, 2019, 576, 422-429.	5.4	19
44	Monitoring Dust Storms in Iraq Using Satellite Data. Sensors, 2019, 19, 3687.	3.8	15
45	Assessment and validation of total water storage in the Chesapeake Bay watershed using GRACE. Journal of Hydrology: Regional Studies, 2019, 24, 100607.	2.4	9
46	Comparison of Normalized Difference Vegetation Index Derived from Landsat, MODIS, and AVHRR for the Mesopotamian Marshes Between 2002 and 2018. Remote Sensing, 2019, 11, 1245.	4.0	48
47	Evaluating hotspots for stormwater harvesting through participatory sensing. Journal of Environmental Management, 2019, 242, 351-361.	7.8	15
48	Passive/active microwave soil moisture change disaggregation using SMAPVEX12 data. Journal of Hydrology, 2019, 574, 1085-1098.	5.4	29
49	Vegetation greening trends in different land use types: natural variability versus human-induced impacts in Greece. Environmental Earth Sciences, 2019, 78, 1.	2.7	17
50	Streamflow Forecasting Using Singular Value Decomposition and Support Vector Machine for the Upper Rio Grande River Basin. Journal of the American Water Resources Association, 2019, 55, 680-699.	2.4	9
51	An in-situ data based model to downscale radiometric satellite soil moisture products in the Upper Hunter Region of NSW, Australia. Journal of Hydrology, 2019, 572, 820-838.	5.4	26
52	Global Dynamics of Stored Precipitation Water in the Topsoil Layer From Satellite and Reanalysis Data. Water Resources Research, 2019, 55, 3328-3346.	4.2	21
53	Assessment of the Biomass Productivity Decline in the Lower Mekong Basin. Remote Sensing, 2019, 11, 2796.	4.0	4
54	Downscaling and Validation of SMAP Radiometer Soil Moisture in CONUS. , 2019, , .		1

#	Article	IF	Citations
55	Evaluation of Satellite-Based Rainfall Estimates in the Lower Mekong River Basin (Southeast Asia). Remote Sensing, 2019, 11, 2709.	4.0	30
56	Global-scale assessment and combination of SMAP with ASCAT (active) and AMSR2 (passive) soil moisture products. Remote Sensing of Environment, 2018, 204, 260-275.	11.0	147
57	Evaluating Renewable Groundwater Stress with GRACE Data in Greece. Ground Water, 2018, 56, 501-514.	1.3	12
58	Estimating Groundwater Abstractions at the Aquifer Scale Using GRACE Observations. Geosciences (Switzerland), 2018, 8, 419.	2.2	12
59	Ground and satellite based observation datasets for the Lower Mekong River Basin. Data in Brief, 2018, 21, 2020-2027.	1.0	30
60	Smap Radiometer Soil Moisture Downscaling in Conus. , 2018, , .		0
61	A comparative study of available water in the major river basins of the world. Journal of Hydrology, 2018, 567, 510-532.	5.4	73
62	Developing Land Use Land Cover Maps for the Lower Mekong Basin to Aid Hydrologic Modeling and Basin Planning. Remote Sensing, 2018, 10, 1910.	4.0	17
63	Comparison and Bias Correction of TMPA Precipitation Products over the Lower Part of Redâ€“Thai Binh River Basin of Vietnam. Remote Sensing, 2018, 10, 1582.	4.0	25
64	Using Satellite Remote Sensing to Study the Impact of Climate and Anthropogenic Changes in the Mesopotamian Marshlands, Iraq. Remote Sensing, 2018, 10, 1524.	4.0	29
65	AMSR2 Soil Moisture Downscaling Using Temperature and Vegetation Data. Remote Sensing, 2018, 10, 1575.	4.0	38
66	Downscaling of SMAP Soil Moisture Using Land Surface Temperature and Vegetation Data. Vadose Zone Journal, 2018, 17, 1-15.	2.2	57
67	Intercomparison of trend analysis of Multisatellite Monthly Precipitation Products and Gauge Measurements for River Basins of India. Journal of Hydrology, 2018, 565, 779-790.	5.4	76
68	Satellite observations and modeling to understand the Lower Mekong River Basin streamflow variability. Journal of Hydrology, 2018, 564, 559-573.	5.4	59
69	Improved Hydrological Decision Support System for the Lower Mekong River Basin Using Satellite-Based Earth Observations. Remote Sensing, 2018, 10, 885.	4.0	59
70	Use of Cyclone Global Navigation Satellite System (CyGNSS) Observations for Estimation of Soil Moisture. Geophysical Research Letters, 2018, 45, 8272-8282.	4.0	138
71	Bias Correction of Long-Term Satellite Monthly Precipitation Product (TRMM 3B43) over the Conterminous United States. Journal of Hydrometeorology, 2017, 18, 2491-2509.	1.9	59
72	Soil Moisture Remote Sensing: Stateâ€ofâ€theâ€Science. Vadose Zone Journal, 2017, 16, 1-9.	2.2	200

#	Article	IF	Citations
73	Monitoring Drought in Brazil by Remote Sensing. Springer Remote Sensing/photogrammetry, 2017, , 197-218.	0.4	4
74	Passive/active microwave soil moisture disaggregation using SMAP data. , 2017, , .		0
75	Optical and Physical Methods for Mapping Flooding with Satellite Imagery. Springer Remote Sensing/photogrammetry, 2017, , 83-103.	0.4	5
76	Comparing and Combining Remotely Sensed Land Surface Temperature Products for Improved Hydrological Applications. Remote Sensing, 2016, 8, 162.	4.0	22
77	Beyond <scp>GRACE</scp>: Using Satellite Data for Groundwater Investigations. Ground Water, 2016, 54, 615-618.	1.3	28
78	Daily rainfall statistics of TRMM and CMORPH: A case for trans-boundary Gandak River basin. Journal of Earth System Science, 2016, 125, 919-934.	1.3	20
79	A global assessment of the timing of extreme rainfall from TRMM and GPM for improving hydrologic design. Environmental Research Letters, 2016, 11, 054003.	5.2	50
80	A new framework for monitoring flood inundation using readily available satellite data. Geophysical Research Letters, 2016, 43, 2599-2605.	4.0	20
81	Using a data grid to automate data preparation pipelines required for regional-scale hydrologic modeling. Environmental Modelling and Software, 2016, 78, 31-39.	4.5	20
82	A methodology for evaluating evapotranspiration estimates at the watershed-scale using GRACE. Journal of Hydrology, 2015, 523, 574-586.	5.4	56
83	Passive/active microwave soil moisture retrieval disaggregation using SMAPVEX12 data. Proceedings of SPIE, 2014, , .	0.8	2
84	Soil moisture at watershed scale: Remote sensing techniques. Journal of Hydrology, 2014, 516, 258-272.	5.4	120
85	Spatial downscaling of coarse passive radiometer soil moisture using radar, vegetation index and surface temperature. , 2013, , .		0
86	Remote Sensing of Soil Moisture. ISRN Soil Science, 2013, 2013, 1-33.	0.8	75
87	Passive Microwave Soil Moisture Downscaling Using Vegetation Index and Skin Surface Temperature. Vadose Zone Journal, 2013, 12, 1-19.	2.2	79
88	Evaluating Biasâ€Corrected AMSRâ€E Soil Moisture using in situ Observations and Model Estimates. Vadose Zone Journal, 2013, 12, 1-13.	2.2	27
89	Remote Sensing for Vadose Zone Hydrologyâ€"A Synthesis from the Vantage Point. Vadose Zone Journal, 2013, 12, 1-6.	2.2	16
90	Monitoring water from space. Eos, 2012, 93, 203-204.	0.1	0

#	Article	IF	Citations
91	A comparison of SNOTEL and AMSR-E snow water equivalent data sets in western US watersheds. International Journal of Remote Sensing, 2011, 32, 6611-6629.	2.9	7
92	Validation of AMSR-E soil moisture using L-band airborne radiometer data from National Airborne Field Experiment 2006. Remote Sensing of Environment, 2011, 115, 2096-2103.	11.0	43
93	The influence of the land surface on hydrometeorology and ecology: new advances from modeling and satellite remote sensing. Hydrology Research, 2011, 42, 95-112.	2.7	40
94	Validation of the ASAR Global Monitoring Mode Soil Moisture Product Using the NAFE'05 Data Set. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 2498-2508.	6.3	40
95	An Assessment of QuikSCAT Ku-Band Scatterometer Data for Soil Moisture Sensitivity. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 640-643.	3.1	28
96	Terrain: Slope Influence on QuikSCAT Backscatter. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 2722-2732.	6.3	5
97	Effects of vegetation and soil moisture on the simulated land surface processes from the coupled WRF/Noah model. Journal of Geophysical Research, 2009, 114, .	3.3	80
98	Aircraft based soil moisture retrievals under mixed vegetation and topographic conditions. Remote Sensing of Environment, 2008, 112, 375-390.	11.0	55
99	Characterizing subpixel variability of low resolution radiometer derived soil moisture using high resolution radar data. Water Resources Research, 2008, 44, .	4.2	47
100	Relationship between Vegetation Biophysical Properties and Surface Temperature Using Multisensor Satellite Data. Journal of Climate, 2007, 20, 5593-5606.	3.2	30
101	Variation of Hydrometeorological Conditions along a Topographic Transect in Northwestern Mexico during the North American Monsoon. Journal of Climate, 2007, 20, 1792-1809.	3.2	69
102	Validation of AMSR-E Soil Moisture Products Using Watershed Networks. , 2006, , .		7
103	Long Term Trends in Microwave Brightness Temperature and Vegetation from SSM/I and AVHRR. , 2006, , .		0
104	Large scale measurements of soil moisture for validation of remotely sensed data: Georgia soil moisture experiment of 2003. Journal of Hydrology, 2006, 323, 120-137.	5.4	99
105	High-resolution change estimation of soil moisture using L-band radiometer and Radar observations made during the SMEX02 experiments. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1545-1554.	6.3	139
106	The Effects of Satellite-Derived Vegetation Cover Variability on Simulated Landâ€“Atmosphere Interactions in the NAMS. Journal of Climate, 2005, 18, 21-40.	3.2	70
107	A Simple Method for Spatial Disaggregation of Radiometer Derived Soil Moisture using Higher Resolution Radar Observations. Journal of Electromagnetic Waves and Applications, 2005, 19, 1711-1719.	1.6	3
108	Microwave remote sensing of soil moisture: evaluation of the TRMM microwave imager (TMI) satellite for the Little River Watershed Tifton, Georgia. Journal of Hydrology, 2005, 307, 242-253.	5.4	62

#	Article	IF	Citations
109	Remote Sensing and Hydrology. , 2005, , .		0
110	Simulation of Water and Energy Budgets Using a Macroscale Hydrological Model for the Upper Mississippi River Basin. , 2005, , 97-127.		0
111	Retrieval of soil moisture from passive and active L/S band sensor (PALS) observations during the Soil Moisture Experiment in 2002 (SMEX02). Remote Sensing of Environment, 2004, 92, 483-496.	11.0	89
112	The role of satellite remote sensing in the Prediction of Ungauged Basins. Hydrological Processes, 2004, 18, 1029-1034.	2.6	59
113	Predictions in ungauged basins as a catalyst for multidisciplinary hydrology. Eos, 2004, 85, 451.	0.1	43
114	Soil moisture as an indicator of weather extremes. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	56
115	Analysis of process controls in land surface hydrological cycle over the continental United States. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	47
116	Use of the scanning multichannel microwave radiometer (SMMR) to retrieve soil moisture and surface temperature over the central United States. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 1482-1494.	6.3	14
117	Soil moisture-temperature relationships: results from two field experiments. Hydrological Processes, 2003, 17, 3041-3057.	2.6	84
118	Soil moisture estimates from TRMM Microwave Imager observations over the Southern United States. Remote Sensing of Environment, 2003, 85, 507-515.	11.0	131
119	IAHS Decade on Predictions in Ungauged Basins (PUB), 2003â€“2012: Shaping an exciting future for the hydrological sciences. Hydrological Sciences Journal, 2003, 48, 857-880.	2.6	982
120	GCIP water and energy budget synthesis (WEBS). Journal of Geophysical Research, 2003, 108, .	3.3	86
121	Soil moisture retrieval using the passive/active l- and s-band radar/radiometer. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 2792-2801.	6.3	55
122	Soil moisture retrieval from AMSR-E. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 215-229.	6.3	1,259
123	Links between Snow Cover, Surface Skin Temperature, and Rainfall Variability in the North American Monsoon System. Journal of Climate, 2003, 16, 1821-1829.	3.2	28
124	Normalization and comparison of surface temperatures across a range of scales. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 2636-2646.	6.3	19
125	Sensitivity, spatial heterogeneity, and scaling of C-band microwave brightness temperatures for land hydrology studies. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 2626-2635.	6.3	15
126	Observations of soil moisture using a passive and active low-frequency microwave airborne sensor during SGP99. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 2659-2673.	6.3	191

#	Article	IF	Citations
127	Comparison of surface meteorological variables from TOVS and AVHRR. Remote Sensing of Environment, 2002, 79, 176-188.	11.0	5
128	Validation of land surface models using satellite-derived surface temperature. Journal of Geophysical Research, 2001, 106, 20085-20099.	3.3	13
129	Analysis of the 1993 midwestern flood using satellite and ground data. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 1736-1743.	6.3	10
130	Land surface air temperature mapping using TOVS and AVHRR. International Journal of Remote Sensing, 2001, 22, 643-662.	2.9	53
131	Assimilation of fAPAR and surface temperature into a land surface and vegetation model. Water Science and Application, 2001, , 177-200.	0.3	4
132	Utilization of satellite data in land surface hydrology: sensitivity and assimilation. Hydrological Processes, 2001, 15, 877-892.	2.6	13
133	A simple surface temperature assimilation scheme for use in land surface models. Water Resources Research, 2000, 36, 3687-3700.	4.2	56
134	Comparison of TOVS-derived land surface variables with ground observations. Journal of Geophysical Research, 2000, 105, 2179-2190.	3.3	34
135	Longwave emission from a plant/soil surface as a function of the view direction: Dependence on the canopy architecture. International Journal of Remote Sensing, 1999, 20, 2195-2201.	2.9	16
136	Determination of land surface skin temperatures and surface air temperature and humidity from TOVS HIRS2/MSU data. Advances in Space Research, 1998, 22, 629-636.	2.6	18
137	Diurnal cycles of evaporation using a two-layer hydrological model. Journal of Hydrology, 1998, 204, 37-51.	5.4	13
138	Special sensor microwave imager data in field experiments: FIFE-1987. International Journal of Remote Sensing, 1998, 19, 481-505.	2.9	13
139	Investigation of effect of heterogeneities in vegetation and rainfall on simulated SSM/I brightness temperatures. International Journal of Remote Sensing, 1997, 18, 2763-2784.	2.9	10
140	Evaluation of Special Sensor Microwave/Imager Satellite Data for Regional Soil Moisture Estimation over the Red River Basin. Journal of Applied Meteorology and Climatology, 1997, 36, 1309-1328.	1.7	56
141	A soil-canopy-atmosphere model for use in satellite microwave remote sensing. Journal of Geophysical Research, 1997, 102, 6911-6927.	3.3	30
142	Scaling Water and Energy Fluxes in Climate Systems: Three Land-Atmospheric Modeling Experiments. Journal of Climate, 1993, 6, 839-857.	3.2	58
143	A Monte Carlo Study of rainfall sampling effect on a distributed catchment model. Water Resources Research, 1991, 27, 119-128.	4.2	161
144	Simulation of microwave brightness temperatures using a coupled land-surface-canopy-atmosphere model. , 0, , .		2

#	Article	IF	Citations
145	Land surface hydrological processes using satellite data. , 0, , .		1
146	Validation of satellite retrieved land surface variables. , 0, , .		0
147	Surface temperature assimilation in land surface models. , 0, , .		0
148	Sensitivity of Remotely Sensed Vegetation to Hydrologic Predictors across the Colorado River Basin, 2001â€“2019. Journal of the American Water Resources Association, 0, , .	2.4	1