

Murali Krishna Gumma

List of Publications by Year in descending order

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61
papers

3,738
citations

159585
30
h-index

128289
60
g-index

61
all docs

61
docs citations

61
times ranked

3977
citing authors

#	ARTICLE	IF	CITATIONS
1	Crop type identification and spatial mapping using Sentinel-2 satellite data with focus on field-level information. Geocarto International, 2022, 37, 1833-1849.	3.5	24
2	Assessing potential locations for flood-based farming using satellite imagery: a case study of Afar region, Ethiopia. Renewable Agriculture and Food Systems, 2022, 37, S28-S42.	1.8	5
3	Water spreading weirs altering flood, nutrient distribution and crop productivity in upstreamâ€”downstream settings in dry lowlands of Afar, Ethiopia. Renewable Agriculture and Food Systems, 2022, 37, S17-S27.	1.8	6
4	Assessing the impacts of watershed interventions using ground data and remote sensing: a case study in Ethiopia. International Journal of Environmental Science and Technology, 2022, 19, 1653-1670.	3.5	8
5	Assimilation of Remote Sensing Data into Crop Growth Model for Yield Estimation: A Case Study from India. Journal of the Indian Society of Remote Sensing, 2022, 50, 257-270.	2.4	19
6	Multiple agricultural cropland products of South Asia developed using Landsat-8 30 m and MODIS 250 m data using machine learning on the Google Earth Engine (GEE) cloud and spectral matching techniques (SMTs) in support of food and water security. GIScience and Remote Sensing, 2022, 59, 1048-1077.	5.9	17
7	Assessment of climate change and vulnerability in Indian state of Telangana for better agricultural planning. Theoretical and Applied Climatology, 2021, 143, 309-325.	2.8	5
8	Contribution of Climate-Smart Agriculture Technologies to Food Self-Sufficiency of Smallholder Households in Mali. Sustainability, 2021, 13, 7757.	3.2	4
9	Measuring and Influencing Behavior Change in Dietary Intake: Integrated Photovoice Approach in Nutrition Interventions in Eastern Kenya. Ecology of Food and Nutrition, 2021, , 1-20.	1.6	0
10	Agricultural cropland extent and areas of South Asia derived using Landsat satellite 30-m time-series big-data using random forest machine learning algorithms on the Google Earth Engine cloud. GIScience and Remote Sensing, 2020, 57, 302-322.	5.9	86
11	Impact of land use changes and management practices on groundwater resources in Kolar district, Southern India. Journal of Hydrology: Regional Studies, 2020, 31, 100732.	2.4	11
12	Assessment of spatio-temporal vegetation dynamics in tropical arid ecosystem of India using MODIS time-series vegetation indices. Arabian Journal of Geosciences, 2020, 13, 1.	1.3	13
13	Dynamics and drivers of land use and land cover changes in Bangladesh. Regional Environmental Change, 2020, 20, 1.	2.9	40
14	Characterizing and mapping cropping patterns in a complex agro-ecosystem: An iterative participatory mapping procedure using machine learning algorithms and MODIS vegetation indices. Computers and Electronics in Agriculture, 2020, 175, 105595.	7.7	29
15	Monitoring Changes in the Cultivation of Pigeonpea and Groundnut in Malawi Using Time Series Satellite Imagery for Sustainable Food Systems. Remote Sensing, 2019, 11, 1475.	4.0	14
16	Mapping cropland extent of Southeast and Northeast Asia using multi-year time-series Landsat 30-m data using a random forest classifier on the Google Earth Engine Cloud. International Journal of Applied Earth Observation and Geoinformation, 2019, 81, 110-124.	2.8	110
17	A watershed approach to managing rainfed agriculture in the semiarid region of southern Mali: integrated research on water and land use. Environment, Development and Sustainability, 2019, 21, 2459-2485.	5.0	18
18	Characterization of the main chickpea cropping systems in India using a yield gap analysis approach. Field Crops Research, 2018, 223, 93-104.	5.1	38

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19	A Review of the Available Land Cover and Cropland Maps for South Asia. Agriculture (Switzerland), 2018, 8, 111.	3.1	10
20	Surface Freshwater Limitation Explains Worst Rice Production Anomaly in India in 2002. Remote Sensing, 2018, 10, 244.	4.0	26
21	A 30-m landsat-derived cropland extent product of Australia and China using random forest machine learning algorithm on Google Earth Engine cloud computing platform. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 144, 325-340.	11.1	316
22	Mapping cropland fallow areas in myanmar to scale up sustainable intensification of pulse crops in the farming system. GIScience and Remote Sensing, 2018, 55, 926-949.	5.9	31
23	Spectral matching techniques (SMTs) and automated cropland classification algorithms (ACCAs) for mapping croplands of Australia using MODIS 250-m time-series (2000-2015) data. International Journal of Digital Earth, 2017, 10, 944-977.	3.9	44
24	Automated cropland mapping of continental Africa using Google Earth Engine cloud computing. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 126, 225-244.	11.1	342
25	Status, genetic diversity and gaps in sorghum germplasm from South Asia conserved at ICRISAT genebank. Plant Genetic Resources: Characterisation and Utilisation, 2017, 15, 527-538.	0.8	6
26	Geographical distribution of traits and diversity in the world collection of pearl millet [Pennisetum glaucum (L.) R. Br., synonym: Cenchrus americanus (L.) Morrone] landraces conserved at the ICRISAT genebank. Genetic Resources and Crop Evolution, 2017, 64, 1365-1381.	1.6	13
27	Nominal 30-m Cropland Extent Map of Continental Africa by Integrating Pixel-Based and Object-Based Algorithms Using Sentinel-2 and Landsat-8 Data on Google Earth Engine. Remote Sensing, 2017, 9, 1065.	4.0	255
28	Urban Sprawl and Adverse Impacts on Agricultural Land: A Case Study on Hyderabad, India. Remote Sensing, 2017, 9, 1136.	4.0	44
29	Monitoring Changes in Croplands Due to Water Stress in the Krishna River Basin Using Temporal Satellite Imagery. Land, 2017, 6, 72.	2.9	2
30	Priority regions for research on dryland cereals and legumes. F1000Research, 2016, 5, 885.	1.6	4
31	Prioritization of Watersheds across Mali Using Remote Sensing Data and GIS Techniques for Agricultural Development Planning. Water (Switzerland), 2016, 8, 260.	2.7	18
32	Satellite imagery and household survey for tracking chickpea adoption in Andhra Pradesh, India. International Journal of Remote Sensing, 2016, 37, 1955-1972.	2.9	6
33	Mapping rice-fallow cropland areas for short-season grain legumes intensification in South Asia using MODIS 250-m time-series data. International Journal of Digital Earth, 2016, 9, 981-1003.	3.9	105
34	Priority regions for research on dryland cereals and legumes. F1000Research, 2016, 5, 885.	1.6	7
35	Quantifying production losses due to drought and submergence of rainfed rice at the household level using remotely sensed MODIS data. Agricultural Systems, 2015, 137, 227-235.	6.1	29
36	Temporal change in land use by irrigation source in Tamil Nadu and management implications. Environmental Monitoring and Assessment, 2015, 187, 4155.	2.7	13

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37	Remote sensing based change analysis of rice environments in Odisha, India. Journal of Environmental Management, 2015, 148, 31-41.	7.8	45
38	Crop Dominance Mapping with IRS-P6 and MODIS 250-m Time Series Data. Agriculture (Switzerland), 2014, 4, 113-131.	3.1	11
39	Mapping Asian Cropping Intensity With MODIS. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 3373-3379.	4.9	54
40	Mapping seasonal rice cropland extent and area in the high cropping intensity environment of Bangladesh using MODIS 500m data for the year 2010. ISPRS Journal of Photogrammetry and Remote Sensing, 2014, 91, 98-113.	11.1	149
41	Selection of Hyperspectral Narrowbands (HNBs) and Composition of Hyperspectral Twoband Vegetation Indices (HVIs) for Biophysical Characterization and Discrimination of Crop Types Using Field Reflectance and Hyperion/EO-1 Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 427-439.	4.9	156
42	Mapping of groundwater potential zones across Ghana using remote sensing, geographic information systems, and spatial modeling. Environmental Monitoring and Assessment, 2013, 185, 3561-3579.	2.7	124
43	Role of groundwater in buffering irrigation production against climate variability at the basin scale in South-West India. Agricultural Water Management, 2012, 103, 78-87.	5.6	38
44	Mapping Irrigated Areas of Ghana Using Fusion of 30 m and 250 m Resolution Remote-Sensing Data. Remote Sensing, 2011, 3, 816-835.	4.0	90
45	Mapping Irrigated Areas Using MODIS 250 Meter Time-Series Data: A Study on Krishna River Basin (India). Water (Switzerland), 2011, 3, 113-131.	2.7	29
46	Temporal changes in rice-growing area and their impact on livelihood over a decade: A case study of Nepal. Agriculture, Ecosystems and Environment, 2011, 142, 382-392.	5.3	64
47	Expansion of urban area and wastewater irrigated rice area in Hyderabad, India. Irrigation and Drainage Systems, 2011, 25, 135-149.	0.5	9
48	Mapping rice areas of South Asia using MODIS multitemporal data. Journal of Applied Remote Sensing, 2011, 5, 053547.	1.3	169
49	Changes in agricultural cropland areas between a water-surplus year and a water-deficit year impacting food security, determined using MODIS 250 m time-series data and spectral matching techniques, in the Krishna River basin (India). International Journal of Remote Sensing, 2011, 32, 3495-3520.	2.9	35
50	Irrigated areas of India derived using MODIS 500 m time series for the years 2001â€“2003. ISPRS Journal of Photogrammetry and Remote Sensing, 2010, 65, 42-59.	11.1	74
51	A Holistic View of Global Croplands and Their Water Use for Ensuring Global Food Security in the 21st Century through Advanced Remote Sensing and Non-remote Sensing Approaches. Remote Sensing, 2010, 2, 211-261.	4.0	75
52	Farmersâ€™ Adaptation and Regional Land-Use Changes in Irrigation Systems under Fluctuating Water Supply, South India. Journal of Irrigation and Drainage Engineering - ASCE, 2010, 136, 595-609.	1.0	11
53	Irrigated Area Maps and Statistics of India Using Remote Sensing and National Statistics. Remote Sensing, 2009, 1, 50-67.	4.0	62
54	Global irrigated area map (GIAM), derived from remote sensing, for the end of the last millennium. International Journal of Remote Sensing, 2009, 30, 3679-3733.	2.9	333

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55	Water productivity mapping using remote sensing data of various resolutions to support "more crop per drop". Journal of Applied Remote Sensing, 2009, 3, 033557.	1.3	16
56	A global map of rainfed cropland areas (GMRCAs) at the end of last millennium using remote sensing. International Journal of Applied Earth Observation and Geoinformation, 2009, 11, 114-129.	2.8	152
57	Spatial models for selecting the most suitable areas of rice cultivation in the Inland Valley Wetlands of Ghana using remote sensing and geographic information systems. Journal of Applied Remote Sensing, 2009, 3, 033537.	1.3	16
58	Water Productivity Mapping (WPM) Using Landsat ETM+ Data for the Irrigated Croplands of the Syrdarya River Basin in Central Asia. Sensors, 2008, 8, 8156-8180.	3.8	83
59	Water Scarcity Effects on Equitable Water Distribution and Land Use in a Major Irrigation Project—Case Study in India. Journal of Irrigation and Drainage Engineering - ASCE, 2008, 134, 26-35.	1.0	50
60	Sub-pixel Area Calculation Methods for Estimating Irrigated Areas. Sensors, 2007, 7, 2519-2538.	3.8	38
61	Irrigated area mapping in heterogeneous landscapes with MODIS time series, ground truth and census data, Krishna Basin, India. International Journal of Remote Sensing, 2006, 27, 4245-4266.	2.9	137