Changshan Wu

List of Publications by Year
in descending order

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79 papers	4,372 citations	159358 30 h-index	106150 65 g-index
83 all docs	83 docs citations	83 times ranked	3962 citing authors

#	Article	IF	Citations
1	Estimating impervious surface distribution by spectral mixture analysis. Remote Sensing of Environment, 2003, 84, 493-505.	4.6	686
2	Normalized spectral mixture analysis for monitoring urban composition using ETM+ imagery. Remote Sensing of Environment, 2004, 93, 480-492.	4.6	392
3	A Review of Remote Sensing Image Classification Techniques: the Role of Spatio-contextual Information. European Journal of Remote Sensing, 2014, 47, 389-411.	1.7	347
4	BCI: A biophysical composition index for remote sensing of urban environments. Remote Sensing of Environment, 2012, 127, 247-259.	4.6	245
5	Examining the impacts of urban biophysical compositions on surface urban heat island: A spectral unmixing and thermal mixing approach. Remote Sensing of Environment, 2013, 131, 262-274.	4.6	179
6	Development of a global 30â€‰m impervious surface map using multisource and multitemporal remote sensing datasets with the Google Earth Engine platform. Earth System Science Data, 2020, 12, 1625-1648.	3.7	161
7	A spatially adaptive spectral mixture analysis for mapping subpixel urban impervious surface distribution. Remote Sensing of Environment, 2013, 133, 62-70.	4.6	152
8	Bicycle facility planning using GIS and multi-criteria decision analysis. Applied Geography, 2010, 30, 282-293.	1.7	136
9	Analyzing and modeling land use land cover change (LUCC) in the Daqing City, China. Applied Geography, 2011, 31, 600-608.	1.7	117
10	Modeling Spatial Dimensions of Housing Prices in Milwaukee, WI. Environment and Planning B: Planning and Design, 2007, 34, 1085-1102.	1.7	90
11	A cokriging method for estimating population density in urban areas. Computers, Environment and Urban Systems, 2005, 29, 558-579.	3.3	86
12	Impact of urbanization on natural ecosystem service values: a comparative study. Environmental Monitoring and Assessment, 2011, 179, 575-588.	1.3	84
13	Quantifying highâ€resolution impervious surfaces using spectral mixture analysis. International Journal of Remote Sensing, 2009, 30, 2915-2932.	1.3	81
14	Regional clustering-based spatial preprocessing for hyperspectral unmixing. Remote Sensing of Environment, 2018, 204, 333-346.	4.6	81
15	RNDSI: A ratio normalized difference soil index for remote sensing of urban/suburban environments. International Journal of Applied Earth Observation and Geoinformation, 2015, 39, 40-48.	1.4	79
16	The use of single-date MODIS imagery for estimating large-scale urban impervious surface fraction with spectral mixture analysis and machine learning techniques. ISPRS Journal of Photogrammetry and Remote Sensing, 2013, 86, 100-110.	4.9	71
17	Population Estimation Using Landsat Enhanced Thematic Mapper Imagery. Geographical Analysis, 2007, 39, 26-43.	1.9	70
18	Optimizing Public Transit Quality and System Access: The Multiple-Route, Maximal Covering/Shortest-Path Problem. Environment and Planning B: Planning and Design, 2005, 32, 163-178.	1.7	66

#	Article	IF	Citations
19	Comparison of Spectral Analysis Techniques for Impervious Surface Estimation Using Landsat Imagery. Photogrammetric Engineering and Remote Sensing, 2008, 74, 1045-1055.	0.3	64
20	Housing submarket classification: The role of spatial contiguity. Applied Geography, 2012, 32, 746-756.	1.7	60
21	Maximum Entropy modeling for habitat suitability assessment of Red-crowned crane. Ecological Indicators, 2018, 91, 439-446.	2.6	40
22	Improving the housing-unit method for small-area population estimation using remote-sensing and GIS information. International Journal of Remote Sensing, 2010, 31, 5673-5688.	1.3	39
23	Assessing fine-spatial-resolution remote sensing for small-area population estimation. International Journal of Remote Sensing, 2010, 31, 5605-5634.	1.3	38
24	Seasonal Sensitivity Analysis of Impervious Surface Estimation with Satellite Imagery. Photogrammetric Engineering and Remote Sensing, 2007, 73, 1393-1401.	0.3	37
25	Understanding Population Segregation from Landsat ETM+ Imagery: A Geographically Weighted Regression Approach. GIScience and Remote Sensing, 2004, 41, 187-206.	2.4	36
26	Modeling urban land use conversion of Daqing City, China: a comparative analysis of â€œtop-downâ€•and â€œbottom-upâ€•approaches. Stochastic Environmental Research and Risk Assessment, 2014, 28, 817-828.	1.9	36
27	Detailed Urban Land Use Land Cover Classification at the Metropolitan Scale Using a Three-Layer Classification Scheme. Sensors, 2019, 19, 3120.	2.1	36
28	Mapping Rice Paddies in Complex Landscapes with Convolutional Neural Networks and Phenological Metrics. GIScience and Remote Sensing, 2020, 57, 37-48.	2.4	36
29	Estimating very high resolution urban surface temperature using a spectral unmixing and thermal mixing approach. International Journal of Applied Earth Observation and Geoinformation, 2013, 23, 155-164.	1.4	34
30	High Resolution Impervious Surface Estimation. Photogrammetric Engineering and Remote Sensing, 2010, 76, 1329-1341.	0.3	28
31	Speciation and distribution characteristics of heavy metals and pollution assessments in the sediments of Nashina Lake, Heilongjiang, China. Ecotoxicology, 2014, 23, 681-688.	1.1	28
32	Mapping Soil Alkalinity and Salinity in Northern Songnen Plain, China with the HJ-1 Hyperspectral Imager Data and Partial Least Squares Regression. Sensors, 2018, 18, 3855.	2.1	28
33	Examining forest net primary productivity dynamics and driving forces in northeastern China during 1982â€“2010. Chinese Geographical Science, 2014, 24, 631-646.	1.2	26
34	Incorporating Remote Sensing Information in Modeling House Values. Photogrammetric Engineering and Remote Sensing, 2006, 72, 129-138.	0.3	23
35	Phenology-based temporal mixture analysis for estimating large-scale impervious surface distributions. International Journal of Remote Sensing, 2014, 35, 779-795.	1.3	22
36	Examining human heat stress with remote sensing technology. GIScience and Remote Sensing, 2018, 55, 19-37.	2.4	22

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37	Examining the economic impact of park facilities on neighboring residential property values. Applied Geography, 2013, 45, 322-331.	1.7	21
38	A neighbourhood-constrainedk-means approach to classify very high spatial resolution hyperspectral imagery. Remote Sensing Letters, 2013, 4, 161-170.	0.6	21
39	Development of a Class-Based Multiple Endmember Spectral Mixture Analysis (C-MESMA) Approach for Analyzing Urban Environments. Remote Sensing, 2016, 8, 349.	1.8	21
40	Spatially Constrained Multiple Endmember Spectral Mixture Analysis for Quantifying Subpixel Urban Impervious Surfaces. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1976-1984.	2.3	20
41	Mapping Urban Land Cover of a Large Area Using Multiple Sensors Multiple Features. Remote Sensing, 2018, 10, 872.	1.8	20
42	Population estimation using remote sensing and GIS technologies. International Journal of Remote Sensing, 2010, 31, 5569-5570.	1.3	19
43	A geostatistical temporal mixture analysis approach to address endmember variability for estimating regional impervious surface distributions. GIScience and Remote Sensing, 2016, 53, 102-121.	2.4	19
44	Impacts of climate change and urban growth on the streamflow of the Milwaukee River (Wisconsin,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.4	19
45	Development of a Coordinate Transformation method for direct georeferencing in map projection frames. ISPRS Journal of Photogrammetry and Remote Sensing, 2013, 77, 94-103.	4.9	17
46	Direct georeferencing of oblique and vertical imagery in different coordinate systems. ISPRS Journal of Photogrammetry and Remote Sensing, 2014, 95, 122-133.	4.9	17
47	Examining the impact of urban biophysical composition and neighboring environment on surface urban heat island effect. Advances in Space Research, 2016, 57, 96-109.	1.2	17
48	Improving impervious surface estimation: an integrated method of classification and regression trees (CART) and linear spectral mixture analysis (LSMA) based on error analysis. GIScience and Remote Sensing, 2018, 55, 583-603.	2.4	17
49	Assessment of changes in place of death of older adults who died from dementia in the United States, 2000â€“2014: a time-series cross-sectional analysis. BMC Public Health, 2020, 20, 765.	1.2	17
50	Incorporating land use land cover probability information into endmember class selections for temporal mixture analysis. ISPRS Journal of Photogrammetry and Remote Sensing, 2015, 101, 163-173.	4.9	16
51	Detecting spatiotemporal clusters of dementia mortality in the United States, 2000â€“2010. Spatial and Spatio-temporal Epidemiology, 2018, 27, 11-20.	0.9	16
52	MODIS-Based Fractional Crop Mapping in the U.S. Midwest with Spatially Constrained Phenological Mixture Analysis. Remote Sensing, 2015, 7, 512-529.	1.8	15
53	Examining the Deep Belief Network for Subpixel Unmixing with Medium Spatial Resolution Multispectral Imagery in Urban Environments. Remote Sensing, 2019, 11, 1566.	1.8	15
54	Estimation of Residence Time and Transport Trajectory in Tieshangang Bay, China. Water (Switzerland), 2017, 9, 321.	1.2	14

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55	Optimized maximum noise fraction for dimensionality reduction of Chinese HJ-1A hyperspectral data. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	13
56	Improving Small-Area Population Estimation: An Integrated Geographic and Demographic Approach. Annals of the American Association of Geographers, 2013, 103, 1123-1141.	3.0	13
57	Segmentation-based and rule-based spectral mixture analysis for estimating urban imperviousness. Advances in Space Research, 2015, 55, 1307-1315.	1.2	13
58	Developing a Scene-Based Triangulated Irregular Network (TIN) Technique for Individual Tree Crown Reconstruction with LiDAR Data. Forests, 2020, 11, 28.	0.9	13
59	Individual tree identification using a new cluster-based approach with discrete-return airborne LiDAR data. Remote Sensing of Environment, 2021, 258, 112382.	4.6	13
60	Spatial and temporal variation of the urban impervious surface and its driving forces in the central city of Harbin. Journal of Chinese Geography, 2018, 28, 323-336.	1.5	12
61	Hydrological Regime Monitoring and Mapping of the Zhalong Wetland through Integrating Time Series Radarsat-2 and Landsat Imagery. Remote Sensing, 2018, 10, 702.	1.8	12
62	A spatially explicit method to examine the impact of urbanisation on natural ecosystem service values. Journal of Spatial Science, 2013, 58, 275-289.	1.0	11
63	Estimating Real-Time Water Area of Dongting Lake Using Water Level Information. Water (Switzerland), 2019, 11, 1240.	1.2	11
64	Improving Impervious Surface Estimation by Using Remote Sensed Imagery Combined With Open Street Map Points-of-Interest (POI) Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 4265-4274.	2.3	11
65	Predicting future urban impervious surface distribution using cellular automata and regression analysis. Earth Science Informatics, 2018, 11, 19-29.	1.6	10
66	Crown-level tree species classification from AISA hyperspectral imagery using an innovative pixel-weighting approach. International Journal of Applied Earth Observation and Geoinformation, 2018, 68, 298-307.	1.4	9
67	Tree Crown Width Estimation, Using Discrete Airborne LiDAR Data. Canadian Journal of Remote Sensing, 2016, 42, 610-618.	1.1	8
68	Impervious Surface Extraction From Multispectral Images via Morphological Attribute Profiles Based on Spectral Analysis. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 4775-4790.	2.3	7
69	Public Health Data Collection and Sharing Using HIPAA Messages. Journal of Medical Systems, 2005, 29, 303-316.	2.2	6
70	A Geographic Information-Assisted Temporal Mixture Analysis for Addressing the Issue of Endmember Class and Endmember Spectra Variability. Sensors, 2017, 17, 624.	2.1	6
71	Uncertainty Problems in Image Change Detection. Sustainability, 2020, 12, 274.	1.6	6
72	Simulating the Impacts of an Upstream Dam on Pollutant Transport: A Case Study on the Xiangjiang River, China. Water (Switzerland), 2016, 8, 516.	1.2	5

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73	Introduction to advancements of GIS in the new IT era. Annals of GIS, 2021, 27, 1-4.	1.4	5
74	Inversion of Lake Bathymetry through Integrating Multi-Temporal Landsat and ICESat Imagery. Sensors, 2019, 19, 2896.	2.1	4
75	Optimal selection of GCPs from Global Land Survey 2005 for precision geometric correction of Landsat-8 imagery. European Journal of Remote Sensing, 2015, 48, 303-318.	1.7	3
76	Wetland Mapping Using HJ-1A/B Hyperspectral Images and an Adaptive Sparse Constrained Least Squares Linear Spectral Mixture Model. Remote Sensing, 2021, 13, 751.	1.8	3
77	Examining the effectiveness of weighted spectral mixture analysis (WSMA) in urban environments. International Journal of Remote Sensing, 2019, 40, 3055-3075.	1.3	2
78	Modeling Urban Growth at a Micro Level. International Journal of Applied Geospatial Research, 2015, 6, 36-52.	0.2	1
79	Examining the Effectiveness of Spectrally Transformed SMA in Urban Environments. Photogrammetric Engineering and Remote Sensing, 2019, 85, 521-528.	0.3	0