

# Lifu Zhang

## List of Publications by Year in descending order

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113  
papers

3,122  
citations

172457

29  
h-index

168389

53  
g-index

116  
all docs

116  
docs citations

116  
times ranked

3531  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Synchronous Long Time-Series Completion Method Using 3-D Fully Convolutional Neural Networks. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	1
2	Monitoring Spatio-Temporal Dynamics in the Eastern Plain Lakes of China Using Long-Term MODIS UNWI Index. Remote Sensing, 2022, 14, 985.	4.0	3
3	Crop classification based on the spectrottemporal signature derived from vegetation indices and accumulated temperature. International Journal of Digital Earth, 2022, 15, 626-652.	3.9	7
4	Effects on ecosystem services value due to land use and land cover change (1990â€“2020) in the transboundary Karnali River Basin, Central Himalayas. SN Applied Sciences, 2022, 4, 1.	2.9	2
5	Estimation of Cotton Leaf Area Index (LAI) Based on Spectral Transformation and Vegetation Index. Remote Sensing, 2022, 14, 136.	4.0	27
6	Hyperspectral UAV Images at Different Altitudes for Monitoring the Leaf Nitrogen Content in Cotton Crops. Remote Sensing, 2022, 14, 2576.	4.0	8
7	Prediction of Total Phosphorus Concentration in Macrophytic Lakes Using Chlorophyll-Sensitive Bands: A Case Study of Lake Baiyangdian. Remote Sensing, 2022, 14, 3077.	4.0	6
8	Automatic Cotton Mapping Using Time Series of Sentinel-2 Images. Remote Sensing, 2021, 13, 1355.	4.0	11
9	Study on the Quantitative Relationship Among Canopy Hyperspectral Reflectance, Vegetation Index and Cotton Leaf Nitrogen Content. Journal of the Indian Society of Remote Sensing, 2021, 49, 1787-1799.	2.4	9
10	Forest restoration and support for sustainable ecosystems in the Gandaki Basin, Nepal. Environmental Monitoring and Assessment, 2021, 193, 563.	2.7	4
11	A Fast Hyperspectral Anomaly Detection Algorithm Based on Greedy Bilateral Smoothing and Extended Multi-Attribute Profile. Remote Sensing, 2021, 13, 3954.	4.0	2
12	Artificial intelligence: A powerful paradigm for scientific research. Innovation(China), 2021, 2, 100179.	9.1	200
13	Learning-Based Hyperspectral Imagery Compression through Generative Neural Networks. Remote Sensing, 2020, 12, 3657.	4.0	9
14	Automatic Crop Classification in Northeastern China by Improved Nonlinear Dimensionality Reduction for Satellite Image Time Series. Remote Sensing, 2020, 12, 2726.	4.0	16
15	A Fast Three-Dimensional Convolutional Neural Network-Based Spatiotemporal Fusion Method (STF3DCNN) Using a Spatial-Temporal-Spectral Dataset. Remote Sensing, 2020, 12, 3888.	4.0	8
16	Spatialâ€“Temporal Wetland Landcover Changes of Poyang Lake Derived from Landsat and HJ-1A/B Data in the Dry Season from 1973â€“2019. Remote Sensing, 2020, 12, 1595.	4.0	17
17	Satellite Observed Positive Impacts of Fog on Vegetation. Geophysical Research Letters, 2020, 47, e2020GL088428.	4.0	10
18	Automatic Estimation of Crop Disease Severity Levels Based on Vegetation Index Normalization. Remote Sensing, 2020, 12, 1930.	4.0	35

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19	UNVI-Based Time Series for Vegetation Discrimination Using Separability Analysis and Random Forest Classification. <i>Remote Sensing</i> , 2020, 12, 529.	4.0	8
20	A New Time Series Change Detection Method for Landsat Land use and Land Cover Change. , 2019, , .		6
21	Monitoring Drought Effects on Vegetation Productivity Using Satellite Solar-Induced Chlorophyll Fluorescence. <i>Remote Sensing</i> , 2019, 11, 378.	4.0	38
22	Monitoring vegetation dynamics using the universal normalized vegetation index (UNVI): An optimized vegetation index-VIUPD. <i>Remote Sensing Letters</i> , 2019, 10, 629-638.	1.4	22
23	Definition Management Zones of Drip Irrigation Cotton Field Based on the GIS and RS. <i>IFIP Advances in Information and Communication Technology</i> , 2019, , 508-517.	0.7	0
24	A Global Sensitivity Analysis of Commonly Used Satellite-Derived Vegetation Indices for Homogeneous Canopies Based on Model Simulation and Random Forest Learning. <i>Remote Sensing</i> , 2019, 11, 2547.	4.0	7
25	Retrieval of Chemical Oxygen Demand through Modified Capsule Network Based on Hyperspectral Data. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4620.	2.5	13
26	Predicting cadmium concentration in soils using laboratory and field reflectance spectroscopy. <i>Science of the Total Environment</i> , 2019, 650, 321-334.	8.0	62
27	Adaptive Change Detection With Significance Test. <i>IEEE Access</i> , 2018, 6, 27442-27450.	4.2	33
28	Cloud removal for hyperspectral remotely sensed images based on hyperspectral information fusion. <i>International Journal of Remote Sensing</i> , 2018, 39, 6646-6656.	2.9	9
29	An Improved Simplex Maximum Distance Algorithm for Endmember Extraction in Hyperspectral Image. , 2018, , .		0
30	Crop Cycles and Crop Land Classification in Nepal Using MODIS NDVI. <i>Remote Sensing in Earth Systems Sciences</i> , 2018, 1, 14-28.	1.8	11
31	Land Use/Land Cover Dynamics and Modeling of Urban Land Expansion by the Integration of Cellular Automata and Markov Chain. <i>ISPRS International Journal of Geo-Information</i> , 2018, 7, 154.	2.9	153
32	Quantifying the Spatiotemporal Pattern of Urban Expansion and Hazard and Risk Area Identification in the Kaski District of Nepal. <i>Land</i> , 2018, 7, 37.	2.9	40
33	Urban Expansion Occurred at the Expense of Agricultural Lands in the Tarai Region of Nepal from 1989 to 2016. <i>Sustainability</i> , 2018, 10, 1341.	3.2	71
34	Blood hyperviscosity identification with reflective spectroscopy of tongue tip based on principal component analysis combining artificial neural network. <i>BioMedical Engineering OnLine</i> , 2018, 17, 60.	2.7	2
35	Retrieval of Sun-Induced Chlorophyll Fluorescence Using Statistical Method Without Synchronous Irradiance Data. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2017, 14, 384-388.	3.1	8
36	Detection and location of fouling on photovoltaic panels using a drone-mounted infrared thermography system. <i>Journal of Applied Remote Sensing</i> , 2017, 11, 016026.	1.3	17

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37	A mineral feature extraction method based on virtual band simulation. Remote Sensing Letters, 2017, 8, 547-556.	1.4	3
38	Studying drought phenomena in the Continental United States in 2011 and 2012 using various drought indices. Remote Sensing of Environment, 2017, 190, 96-106.	11.0	182
39	Fast Real-Time Causal Linewise Progressive Hyperspectral Anomaly Detection via Cholesky Decomposition. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 4614-4629.	4.9	16
40	Development and preliminary results of a drilling core spectral imaging and cataloging system. Optical Engineering, 2017, 56, 081810.	1.0	2
41	Shortwave Infrared Imaging Spectroscopy for Analysis of Ancient Paintings. Applied Spectroscopy, 2017, 71, 977-987.	2.2	33
42	Monitoring Urban Growth and the Nepal Earthquake 2015 for Sustainability of Kathmandu Valley, Nepal. Land, 2017, 6, 42.	2.9	27
43	Improved Aerosol Optical Thickness, Columnar Water Vapor, and Surface Reflectance Retrieval from Combined CASI and SASI Airborne Hyperspectral Sensors. Remote Sensing, 2017, 9, 217.	4.0	6
44	An NDVI-Based Vegetation Phenology Is Improved to be More Consistent with Photosynthesis Dynamics through Applying a Light Use Efficiency Model over Boreal High-Latitude Forests. Remote Sensing, 2017, 9, 695.	4.0	26
45	Monitoring and Modeling of Spatiotemporal Urban Expansion and Land-Use/Land-Cover Change Using Integrated Markov Chain Cellular Automata Model. ISPRS International Journal of Geo-Information, 2017, 6, 288.	2.9	119
46	Perspectives on Chinese developments in spaceborne imaging spectroscopy: What's new in 2016. , 2017, , .		0
47	Interpretation and implication of canopy diurnal fluorescence by the field automatic measurement system. , 2017, , .		0
48	A method for extracting vegetation information of Urban underlying surface oriented to ECO-environmental quality assessment. , 2017, , .		0
49	Ground-based long-term remote sensing of solar-induced chlorophyll fluorescence: Methods, challenges and opportunities. , 2017, , .		0
50	Evaluating an Enhanced Vegetation Condition Index (VCI) Based on VIUPD for Drought Monitoring in the Continental United States. Remote Sensing, 2016, 8, 224.	4.0	85
51	Monitoring and Assessing the 2012 Drought in the Great Plains: Analyzing Satellite-Retrieved Solar-Induced Chlorophyll Fluorescence, Drought Indices, and Gross Primary Production. Remote Sensing, 2016, 8, 61.	4.0	85
52	Evaluation of the Chinese Fine Spatial Resolution Hyperspectral Satellite TianGong-1 in Urban Land-Cover Classification. Remote Sensing, 2016, 8, 438.	4.0	29
53	Mineral absorption feature extraction in vegetation covered region based on reference spectral background removal. , 2016, , .		0
54	Crop Classification Based on Feature Band Set Construction and Object-Oriented Approach Using Hyperspectral Images. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 4117-4128.	4.9	110

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55	Sensitivity analysis for Chl-a retrieval of water body using hyperspectral remote sensing data with different spectral indicators. , 2016, , .		1
56	Comparison of hyperspectral vegetation indices based on CASI airborne data. , 2016, , .		1
57	Fast real-time target detection via target-oriented band selection. , 2016, , .		3
58	Applied analysis for canopy nitrogen retrieval of winter wheat using hyperspectral vegetation index. , 2016, , .		0
59	Semi-supervised hyperspectral unmixing approach based on nonnegative matrix factorization. Proceedings of SPIE, 2016, , .	0.8	0
60	A Modified Locality-Preserving Projection Approach for Hyperspectral Image Classification. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 1059-1063.	3.1	38
61	Selecting photovoltaic generation sites in Tibet using remote sensing and geographic analysis. Solar Energy, 2016, 133, 85-93.	6.1	39
62	Development of a Portable Field Imaging Spectrometer: Application for the Identification of Sun-Dried and Sulfur-Fumigated Chinese Herbs. Applied Spectroscopy, 2016, 70, 879-887.	2.2	19
63	Abundance retrieval of hydrous minerals around the Mars Science Laboratory landing site in Gale crater, Mars. Planetary and Space Science, 2016, 121, 76-82.	1.7	5
64	Tree species classification based on stem-related feature parameters derived from static terrestrial laser scanning data. International Journal of Remote Sensing, 2016, 37, 4420-4440.	2.9	5
65	Evaluation of spectral scale effects in estimation of vegetation leaf area index using spectral indices methods. Chinese Geographical Science, 2016, 26, 731-744.	3.0	9
66	Mineral Absorption Feature Extraction From High-Density Vegetation Area Using Reference Spectral Background Removal. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 1994-1998.	3.1	1
67	A new method of mineral absorption feature extraction from vegetation covered area. , 2016, , .		1
68	A non-negative matrix factorization approach for hyperspectral unmixing with partial known endmembers. , 2016, , .		1
69	Development of multidimensional analysis of remote sensing (MARS) software. , 2016, , .		0
70	Disentangling isotropic fluorescence from the canopy directional reflectance using BRDF models. , 2016, , .		0
71	Perspectives on Chinese developments in spaceborne imaging spectroscopy: What to expect in the next 5-10 years. , 2016, , .		1
72	Airborne light detection and ranging laser return intensity-based investigation into crown-inside? A case study on <i>Quercus robur</i> trees. Journal of Applied Remote Sensing, 2016, 10, 026024.	1.3	1

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73	Hyperspectral signal unmixing based on constrained non-negative matrix factorization approach. <i>Neurocomputing</i> , 2016, 204, 153-161.	5.9	23
74	An algorithm of remotely sensed hyperspectral image fusion based on spectral unmixing and feature reconstruction. <i>Proceedings of SPIE</i> , 2016, , .	0.8	0
75	Real-time progressive hyperspectral remote sensing detection methods for crop pest and diseases. <i>Proceedings of SPIE</i> , 2016, , .	0.8	1
76	Spatial-temporal information extraction for vegetation phenology variation based on modis ndvi datasets in the Tibetan Plateau. , 2015, , .		0
77	Assessing the Effect of Temporal Interval Length on the Blending of Landsat-MODIS Surface Reflectance for Different Land Cover Types in Southwestern Continental United States. <i>ISPRS International Journal of Geo-Information</i> , 2015, 4, 2542-2560.	2.9	7
78	Analysis of the Urban Heat Island Effect in Shijiazhuang, China Using Satellite and Airborne Data. <i>Remote Sensing</i> , 2015, 7, 4804-4833.	4.0	63
79	Investigating Fraunhofer line based fluorescence retrieval in O&lt;inf&gt;2&lt;/inf&gt;-B band with hyperspectral radiative transfer simulations. , 2015, , .		1
80	An analysis of shadow effects on spectral vegetation indices using a ground-based imaging spectrometer. , 2015, , .		2
81	Comparison of the Continuity of Vegetation Indices Derived from Landsat 8 OLI and Landsat 7 ETM+ Data among Different Vegetation Types. <i>Remote Sensing</i> , 2015, 7, 13485-13506.	4.0	50
82	Hyperspectral Feature Extraction Based On The Reference Spectral Background Removal Method. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2015, 8, 2832-2844.	4.9	14
83	An Analysis of Shadow Effects on Spectral Vegetation Indexes Using a Ground-Based Imaging Spectrometer. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2015, 12, 2188-2192.	3.1	61
84	Real-Time Constrained Energy Minimization for Subpixel Detection. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2015, 8, 2545-2559.	4.9	13
85	Use of UAV oblique imaging for the detection of individual trees in residential environments. <i>Urban Forestry and Urban Greening</i> , 2015, 14, 404-412.	5.3	72
86	Enhancement of Spectral Resolution for Remotely Sensed Multispectral Image. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2015, 8, 2198-2211.	4.9	49
87	A Simple Enhanced Water Index (EWI) for Percent Surface Water Estimation Using Landsat Data. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2015, 8, 90-97.	4.9	48
88	An Abundance Characteristic-Based Independent Component Analysis for Hyperspectral Unmixing. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2015, 53, 416-428.	6.3	33
89	Evaluation of Multiple Spring Phenological Indicators of Yearly GPP and NEP at Three Canadian Forest Sites. <i>Remote Sensing</i> , 2014, 6, 1991-2007.	4.0	1
90	Calculating vegetation index based on the universal pattern decomposition method (VIUPD) using Landsat 8. , 2014, , .		1

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91	Progress in Hyperspectral Remote Sensing Science and Technology in China Over the Past Three Decades. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 70-91.	4.9	172
92	A combined object-based segmentation and support vector machines approach for classification of Tiangong-01 hyperspectral urban data. , 2014, , .		1
93	Water mapping through Universal Pattern Decomposition Method and Tasseled Cap Transformation. , 2014, , .		1
94	An evaluation of prediction accuracy and stability of a new vegetation index for estimating vegetation leaf area index. , 2014, , .		0
95	Spatially explicit estimation of soil-water resources by coupling of an eco-hydrological model with remote sensing data in the Weihe River Basin of China. Journal of Applied Remote Sensing, 2014, 8, 083653.	1.3	3
96	Light weight airborne imaging spectrometer remote sensing system for mineral exploration in China. Proceedings of SPIE, 2014, , .	0.8	2
97	Using a Remote Sensing Driven Model to Analyze Effect of Land Use on Soil Moisture in the Weihe River Basin, China. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 3892-3902.	4.9	12
98	Hyperspectral Imagery Denoising Based on Oblique Subspace Projection. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2468-2480.	4.9	13
99	A Spectral Angle Distance-Weighting Reconstruction Method for Filled Pixels of the MODIS Land Surface Temperature Product. IEEE Geoscience and Remote Sensing Letters, 2014, 11, 1514-1518.	3.1	23
100	Derivation of a tasseled cap transformation based on Landsat 8 at-satellite reflectance. Remote Sensing Letters, 2014, 5, 423-431.	1.4	462
101	Recursive orthogonal vector projection algorithm for linear spectral unmixing. , 2014, , .		2
102	A Radiometric Calibration Model for the Field Imaging Spectrometer System. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 2465-2475.	6.3	10
103	Polarized Spectral Measurement and Analysis of Sedum Spectabile Boreau Using a Field Imaging Spectrometer System. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 724-730.	4.9	33
104	Decomposition of volume scattering, polarized light and chlorophyll fluorescence by in-situ polarization measurement. , 2013, , .		1
105	Comparison of the sensor dependence of vegetation indices based on Hyperion and CHRIS hyperspectral data. International Journal of Remote Sensing, 2013, 34, 2200-2215.	2.9	8
106	A geometric distortion model for multi-element scanning imaging spectrometer: Some primary experimental results. , 2013, , .		0
107	Sensitivity analysis of radiometrical calibration model to system settings based on field imaging spectrometers. , 2012, , .		0
108	Laboratory Calibration of a Field Imaging Spectrometer System. Sensors, 2011, 11, 2408-2425.	3.8	76

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109	An evaluation of the effect of the spectral response function of satellite sensors on the precision of the universal pattern decomposition method. <i>International Journal of Remote Sensing</i> , 2010, 31, 2083-2090.	2.9	5
110	Simulation of EO-1 Hyperion Data from ALI Multispectral Data Based on the Spectral Reconstruction Approach. <i>Sensors</i> , 2009, 9, 3090-3108.	3.8	41
111	A new vegetation index based on the universal pattern decomposition method. <i>International Journal of Remote Sensing</i> , 2007, 28, 107-124.	2.9	43
112	Assessment of the universal pattern decomposition method using MODIS and ETM+ data. <i>International Journal of Remote Sensing</i> , 2007, 28, 125-142.	2.9	18
113	Sensor-independent analysis method for hyperspectral data based on the pattern decomposition method. <i>International Journal of Remote Sensing</i> , 2006, 27, 4899-4910.	2.9	27