

# Biao Cao

## List of Publications by Year in descending order

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Version: 2024-02-01

50  
papers

873  
citations

516681

16  
h-index

477281

29  
g-index

51  
all docs

51  
docs citations

51  
times ranked

637  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluation of the VIIRS and MODIS LST products in an arid area of Northwest China. <i>Remote Sensing of Environment</i> , 2014, 142, 111-121.	11.0	192
2	A review of earth surface thermal radiation directionality observing and modeling: Historical development, current status and perspectives. <i>Remote Sensing of Environment</i> , 2019, 232, 111304.	11.0	91
3	Temperature-Based and Radiance-Based Validation of the Collection 6 MYD11 and MYD21 Land Surface Temperature Products Over Barren Surfaces in Northwestern China. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2021, 59, 1794-1807.	6.3	56
4	Comparison of the MuSyQ and MODIS Collection 6 Land Surface Temperature Products Over Barren Surfaces in the Heihe River Basin, China. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019, 57, 8081-8094.	6.3	35
5	Estimation of Upward Longwave Radiation From Vegetated Surfaces Considering Thermal Directionality. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2016, 54, 6644-6658.	6.3	34
6	Retrieval of Leaf, Sunlit Soil, and Shaded Soil Component Temperatures Using Airborne Thermal Infrared Multiangle Observations. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2016, 54, 4660-4671.	6.3	31
7	Evaluation of Land Surface Temperature Retrieval from FY-3B/VIRR Data in an Arid Area of Northwestern China. <i>Remote Sensing</i> , 2015, 7, 7080-7104.	4.0	28
8	Estimation of Surface Upward Longwave Radiation Using a Direct Physical Algorithm. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017, 55, 4412-4426.	6.3	27
9	An analytical four-component directional brightness temperature model for crop and forest canopies. <i>Remote Sensing of Environment</i> , 2018, 209, 731-746.	11.0	27
10	A New Directional Canopy Emissivity Model Based on Spectral Invariants. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2018, 56, 6911-6926.	6.3	26
11	A general framework of kernel-driven modeling in the thermal infrared domain. <i>Remote Sensing of Environment</i> , 2021, 252, 112157.	11.0	24
12	Directional variation in surface emissivity inferred from the MYD21 product and its influence on estimated surface upwelling longwave radiation. <i>Remote Sensing of Environment</i> , 2019, 228, 45-60.	11.0	22
13	Comparison of Five Slope Correction Methods for Leaf Area Index Estimation From Hemispherical Photography. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2015, 12, 1958-1962.	3.1	19
14	Evaluation of Four Kernel-Driven Models in the Thermal Infrared Band. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019, 57, 5456-5475.	6.3	19
15	Modeling Directional Brightness Temperature Over Mixed Scenes of Continuous Crop and Road: A Case Study of the Heihe River Basin. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2015, 12, 234-238.	3.1	17
16	An improved histogram matching algorithm for the removal of striping noise in optical remote sensing imagery. <i>Optik</i> , 2015, 126, 4723-4730.	2.9	16
17	Evaluation of Atmospheric Correction Methods for the ASTER Temperature and Emissivity Separation Algorithm Using Ground Observation Networks in the HiWATER Experiment. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019, 57, 3001-3014.	6.3	16
18	A semi-empirical approach for modeling the vegetation thermal infrared directional anisotropy of canopies based on using vegetation indices. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2020, 160, 136-148.	11.1	15

#	ARTICLE	IF	CITATIONS
19	Modeling the directional anisotropy of fine-scale TIR emissions over tree and crop canopies based on UAV measurements. <i>Remote Sensing of Environment</i> , 2021, 252, 112150.	11.0	15
20	An Operational Split-Window Algorithm for Retrieving Land Surface Temperature from Geostationary Satellite Data: A Case Study on Himawari-8 AHI Data. <i>Remote Sensing</i> , 2020, 12, 2613.	4.0	14
21	Evaluation of Six High-Spatial Resolution Clear-Sky Surface Upward Longwave Radiation Estimation Methods with MODIS. <i>Remote Sensing</i> , 2020, 12, 1834.	4.0	14
22	Modeling the Temporal Variability of Thermal Emissions From Row-Planted Scenes Using a Radiosity and Energy Budget Method. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017, 55, 6010-6026.	6.3	13
23	Influence of emissivity angular variation on land surface temperature retrieved using the generalized split-window algorithm. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2019, 82, 101917.	2.8	13
24	Path Length Correction for Improving Leaf Area Index Measurements Over Sloping Terrains: A Deep Analysis Through Computer Simulation. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2020, 58, 4573-4589.	6.3	13
25	A TIR forest reflectance and transmittance (FRT) model for directional temperatures with structural and thermal stratification. <i>Remote Sensing of Environment</i> , 2022, 268, 112749.	11.0	13
26	An Improved Microwave Semiempirical Model for the Dielectric Behavior of Moist Soils. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2018, 56, 6630-6644.	6.3	11
27	A Robust Inversion Algorithm for Surface Leaf and Soil Temperatures Using the Vegetation Clumping Index. <i>Remote Sensing</i> , 2017, 9, 780.	4.0	10
28	Analysis of the Land Surface Temperature Scaling Problem: A Case Study of Airborne and Satellite Data over the Heihe Basin. <i>Remote Sensing</i> , 2015, 7, 6489-6509.	4.0	9
29	Scattering Effect Contributions to the Directional Canopy Emissivity and Brightness Temperature Based on CE-P and CBT-P Models. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2019, 16, 957-961.	3.1	9
30	Improving HJ-1B IRS land surface temperature product using ASTER Global Emissivity Dataset. , 2016, , .		7
31	Retrieving Soil and Vegetation Temperatures From Dual-Angle and Multipixel Satellite Observations. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2020, 13, 5536-5549.	4.9	7
32	Fine scale optical remote sensing experiment of mixed stand over complex terrain (FOREST) in the Genhe Reserve Area: objective, observation and a case study. <i>International Journal of Digital Earth</i> , 2021, 14, 1411-1432.	3.9	7
33	The Effects of Tree Trunks on the Directional Emissivity and Brightness Temperatures of a Leaf-Off Forest Using a Geometric Optical Model. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2021, 59, 5370-5386.	6.3	6
34	Modeling the Distributions of Brightness Temperatures of a Cropland Study Area Using a Model that Combines Fast Radiosity and Energy Budget Methods. <i>Remote Sensing</i> , 2018, 10, 736.	4.0	4
35	Convenient Measurement and Modified Model for Broadleaf Permittivity. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2016, 54, 6986-6996.	6.3	3
36	Assessment of Five Thermal Infrared Kernel-Driven Models Using Limited Multiangle Observations. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2022, 19, 1-5.	3.1	3

#	ARTICLE	IF	CITATIONS
37	A Temperature and Emissivity Separation Algorithm for Chinese Gaofen-5 Satellite Data. , 2018, , .		2
38	Modeling Directional Brightness Temperature (DBT) over Crop Canopy with Effects of Intra-Row Heterogeneity. Remote Sensing, 2020, 12, 2667.	4.0	2
39	Clear-sky land surface upward longwave radiation dataset derived from the ABI onboard the GOES-16 satellite. Big Earth Data, 0, , 1-21.	4.4	2
40	Evaluation the Spatial-Temporal Average Method in the Multi-Angle Information Extraction Based on Near Surface Observation Sensors. , 2018, , .		1
41	Addendum: Bian, Z. et al. A Robust Inversion Algorithm for Surface Leaf and Soil Temperatures Using the Vegetation Clumping Index. Remote Sens. 2017, 9, 780. Remote Sensing, 2017, 9, 1039.	4.0	0
42	Preliminary Evaluation of the Two Collection 6 Modis Land Surface Temperature Products in an Arid Area of Northwest China. , 2018, , .		0
43	An Experimental Study on Separating Temperature and Emissivity of a Nonisothermal Surface. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 1610-1614.	3.1	0
44	Progresses on Thermal Radiation Directionality Modeling for Vegetation Canopy. , 2019, , .		0
45	A Combined Algorithm for Soil and Vegetation Temperatures with SLSTR Dual-Angle Data. , 2019, , .		0
46	Evaluation of the Musyq Land Surface Temperature Product in an Arid Area of Northwest China. , 2019, , .		0
47	High Temporal Resolution Land Surface Temperature Retrieval from Global Geostationary Satellite Data. , 2019, , .		0
48	A Modified Interactive Spectral Smooth Temperature Emissivity Separation Algorithm for Low-Temperature Surface. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 7643-7653.	6.3	0
49	Evaluation of Eight Thermal Infrared Kernel-Driven Models Using Limited Observations. , 2021, , .		0
50	Comparison between Physical and Empirical Methods for Simulating Surface Brightness Temperature Time Series. Remote Sensing, 2022, 14, 3385.	4.0	0