

Yu Xie

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

2,332
citations

331670

21
h-index

289244

40
g-index

57
all docs

57
docs citations

57
times ranked

2258
citing authors

#	ARTICLE	IF	CITATIONS
1	An Improved Algorithm for Estimating Surface Shortwave Radiation: Preliminary Evaluation With MODIS Products. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-9.	6.3	2
2	The WRF-Solar Ensemble Prediction System to Provide Solar Irradiance Probabilistic Forecasts. IEEE Journal of Photovoltaics, 2022, 12, 141-144.	2.5	11
3	Physics-guided machine learning for improved accuracy of the National Solar Radiation Database. Solar Energy, 2022, 232, 483-492.	6.1	12
4	Improving the prediction of DNI with physics-based representation of all-sky circumsolar radiation. Solar Energy, 2022, 231, 758-766.	6.1	5
5	The "Fresnel Equations" for Diffuse radiation on Inclined photovoltaic Surfaces (FEDIS). Renewable and Sustainable Energy Reviews, 2022, 161, 112362.	16.4	9
6	CERES MODIS Cloud Product Retrievals for Edition 4"Part I: Algorithm Changes. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 2744-2780.	6.3	75
7	Use of physics to improve solar forecast: Physics-informed persistence models for simultaneously forecasting GHI, DNI, and DHI. Solar Energy, 2021, 215, 252-265.	6.1	17
8	A physical downscaling algorithm for the generation of high-resolution spatiotemporal solar irradiance data. Solar Energy, 2021, 216, 508-517.	6.1	13
9	An efficient method to identify uncertainties of WRF-Solar variables in forecasting solar irradiance using a tangent linear sensitivity analysis. Solar Energy, 2021, 220, 509-522.	6.1	17
10	The WRF-Solar Ensemble Prediction System To Provide Solar Irradiance Probabilistic Forecasts. , 2021, , .		4
11	Physics-Guided Machine Learning for Prediction of Cloud Properties in Satellite-Derived Solar Data. , 2021, , .		1
12	Evaluation of Models and Measurements to Estimate Solar Radiation for 1-Axis Tracking Modules at NREL's SRRL. , 2021, , .		0
13	Long-term spatial and temporal solar resource variability over America using the NSRDB version 3 (1998"2017). Renewable and Sustainable Energy Reviews, 2020, 134, 110285.	16.4	21
14	Solar Irradiance Capturing in Cloudy Sky Days"A Convolutional Neural Network Based Image Regression Approach. IEEE Access, 2020, 8, 22235-22248.	4.2	20
15	A Physics-Based DNI Model Assessing All-Sky Circumsolar Radiation. IScience, 2020, 23, 100893.	4.1	13
16	Progress on the National Solar Radiation Data Base (NSRDB): A new DNI computation. , 2020, , .		1
17	The national solar radiation data base (NSRDB) for CSP applications. AIP Conference Proceedings, 2019, , .	0.4	4
18	A Fast All-sky Radiation Model for Solar applications with Narrowband Irradiances on Tilted surfaces (FARMS-NIT): Part II. The cloudy-sky model. Solar Energy, 2019, 188, 799-812.	6.1	31

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19	Surface albedo and reflectance: Review of definitions, angular and spectral effects, and intercomparison of major data sources in support of advanced solar irradiance modeling over the Americas. <i>Solar Energy</i> , 2019, 182, 194-212.	6.1	58
20	The Numerical Computation of Clear-Sky Transmittance and Reflectance of Solar Radiation for the Modeling of PV System Performance. , 2019, , .		0
21	A Physics-based Smart Persistence model for Intra-hour forecasting of solar radiation (PSPI) using GHI measurements and a cloud retrieval technique. <i>Solar Energy</i> , 2019, 177, 494-500.	6.1	31
22	Assessment of uncertainty in the numerical simulation of solar irradiance over inclined PV panels: New algorithms using measurements and modeling tools. <i>Solar Energy</i> , 2018, 165, 55-64.	6.1	23
23	The National Solar Radiation Data Base (NSRDB). <i>Renewable and Sustainable Energy Reviews</i> , 2018, 89, 51-60.	16.4	618
24	Assessing the Performance of the Fast All-sky Radiation Model for Solar Applications with Narrowband Irradiances on Tilted Surfaces (FARMS-NIT). , 2018, , .		0
25	A Fast All-sky Radiation Model for Solar applications with Narrowband Irradiances on Tilted surfaces (FARMS-NIT): Part I. The clear-sky model. <i>Solar Energy</i> , 2018, 174, 691-702.	6.1	31
26	Assessment of the National Solar Radiation Database (NSRDB 1998-2016). , 2018, , .		6
27	Building the Sun4Cast System: Improvements in Solar Power Forecasting. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, 121-136.	3.3	53
28	Recent advancements in the numerical simulation of surface irradiance for solar energy applications. , 2017, , .		2
29	Coupling sky images with radiative transfer models: a new method to estimate cloud optical depth. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 4151-4165.	3.1	16
30	Diagnosing model errors in simulation of solar radiation on inclined surfaces. , 2016, , .		2
31	A Fast All-sky Radiation Model for Solar applications (FARMS): Algorithm and performance evaluation. <i>Solar Energy</i> , 2016, 135, 435-445.	6.1	116
32	Modeling beam attenuation in solar tower plants using common DNI measurements. <i>Solar Energy</i> , 2016, 129, 244-255.	6.1	39
33	Polarization of light in the atmosphere and ocean. , 2016, , 3-39.		5
34	A method to measure the broadband longwave irradiance in the terrestrial direct solar beam. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2015, 129, 23-29.	1.6	6
35	Retrievals of cloud fraction and cloud albedo from surface-based shortwave radiation measurements: A comparison of 16-year measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 8925-8940.	3.3	22
36	A new approach for simultaneously retrieving cloud albedo and cloud fraction from surface-based shortwave radiation measurements. <i>Environmental Research Letters</i> , 2013, 8, 044023.	5.2	28

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37	Reconstruction of Summer Sea Level Pressure over East Asia since 1470. <i>Journal of Climate</i> , 2012, 25, 5600-5611.	3.2	3
38	Parameterization of contrail radiative properties for climate studies. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	11
39	Determination of ice cloud models using MODIS and MISR data. <i>International Journal of Remote Sensing</i> , 2012, 33, 4219-4253.	2.9	20
40	Symmetry relations revealed in Mueller matrix hemispherical maps. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2012, 113, 644-651.	2.3	43
41	CERES Edition-2 Cloud Property Retrievals Using TRMM VIRS and Terra and Aqua MODIS Dataâ€”Part I: Algorithms. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2011, 49, 4374-4400.	6.3	410
42	Simulation of the optical properties of plate aggregates for application to the remote sensing of cirrus clouds. <i>Applied Optics</i> , 2011, 50, 1065.	2.1	36
43	Improvements in Shortwave Bulk Scattering and Absorption Models for the Remote Sensing of Ice Clouds. <i>Journal of Applied Meteorology and Climatology</i> , 2011, 50, 1037-1056.	1.5	175
44	Coupling of the microphysical and optical properties of an Arctic nimbostratus cloud during the ASTAR 2004 experiment: Implications for lightâ€”scattering modeling. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	37
45	Estimates of radiation over clouds and dust aerosols: Optimized number of terms in phase function expansion. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2009, 110, 1190-1198.	2.3	26
46	Effect of the inhomogeneity of ice crystals on retrieving ice cloud optical thickness and effective particle size. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	39
47	Snow optical properties for different particle shapes with application to snow grain size retrieval and MODIS/CERES radiance comparison over Antarctica. <i>Remote Sensing of Environment</i> , 2008, 112, 3563-3581.	11.0	92
48	Probabilistic trend of anomalous summer rainfall in Beijing: Role of interdecadal variability. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	11
49	Polarization and effective Mueller matrix for multiple scattering of light by nonspherical ice crystals. <i>Optics Express</i> , 2006, 14, 6381.	3.4	39
50	Effect of ice crystal shape and effective size on snow bidirectional reflectance. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2006, 100, 457-469.	2.3	67