

Peng-Wang Zhai

List of Publications by Year in descending order

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64
papers

1,859
citations

304743

22
h-index

276875

41
g-index

64
all docs

64
docs citations

64
times ranked

1699
citing authors

#	ARTICLE	IF	CITATIONS
1	Occurrence, liquid water content, and fraction of supercooled water clouds from combined CALIOP/IIR/MODIS measurements. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	250
2	A vector radiative transfer model for coupled atmosphere and ocean systems with a rough interface. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2010, 111, 1025-1040.	2.3	129
3	A vector radiative transfer model for coupled atmosphere and ocean systems based on successive order of scattering method. <i>Optics Express</i> , 2009, 17, 2057.	3.4	116
4	Atmospheric Correction of Satellite Ocean-Color Imagery During the PACE Era. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	98
5	Atmospheric correction for hyperspectral ocean color retrieval with application to the Hyperspectral Imager for the Coastal Ocean (HICO). <i>Remote Sensing of Environment</i> , 2018, 204, 60-75.	11.0	83
6	Going Beyond Standard Ocean Color Observations: Lidar and Polarimetry. <i>Frontiers in Marine Science</i> , 2019, 6, .	2.5	80
7	Joint retrieval of aerosol and water-leaving radiance from multispectral, multiangular and polarimetric measurements over ocean. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 2877-2907.	3.1	69
8	Invisibility cloaks for irregular particles using coordinate transformations. <i>Optics Express</i> , 2008, 16, 6134.	3.4	55
9	Optical bistability in electromagnetically induced grating. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2001, 289, 27-33.	2.1	54
10	Electric and magnetic energy density distributions inside and outside dielectric particles illuminated by a plane electromagnetic wave. <i>Optics Express</i> , 2005, 13, 4554.	3.4	53
11	Impulse response solution to the three-dimensional vector radiative transfer equation in atmosphere-ocean systems I Monte Carlo method. <i>Applied Optics</i> , 2008, 47, 1037.	2.1	50
12	Integrating cavities: temporal response. <i>Applied Optics</i> , 2006, 45, 9053.	2.1	44
13	Cirrus optical depth and lidar ratio retrieval from combined CALIPSO&CloudSat observations using ocean surface echo. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	44
14	Retrieval of aerosol properties and water-leaving reflectance from multi-angular polarimetric measurements over coastal waters. <i>Optics Express</i> , 2018, 26, 8968.	3.4	44
15	Modeling Atmosphere-Ocean Radiative Transfer: A PACE Mission Perspective. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	37
16	Retrieving Aerosol Characteristics From the PACE Mission, Part 2: Multi-Angle and Polarimetry. <i>Frontiers in Environmental Science</i> , 2019, 7, .	3.3	37
17	Spectral sea surface reflectance of skylight. <i>Optics Express</i> , 2017, 25, A1.	3.4	34
18	Retrieving Aerosol Characteristics From the PACE Mission, Part 1: Ocean Color Instrument. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	31

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19	Water-leaving contribution to polarized radiation field over ocean. <i>Optics Express</i> , 2017, 25, A689.	3.4	30
20	Efficient multi-angle polarimetric inversion of aerosols and ocean color powered by a deep neural network forward model. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 4083-4110.	3.1	27
21	Inherent optical properties of the coccolithophore: <i>Emiliania huxleyi</i> . <i>Optics Express</i> , 2013, 21, 17625.	3.4	25
22	Vector radiative transfer model for coupled atmosphere and ocean systems including inelastic sources in ocean waters. <i>Optics Express</i> , 2017, 25, A223.	3.4	25
23	An optimization approach for aerosol retrievals using simulated MISR radiances. <i>Atmospheric Research</i> , 2012, 116, 1-14.	4.1	23
24	Equivalent path lengths in an integrating cavity: comment. <i>Applied Optics</i> , 2010, 49, 575.	2.1	22
25	CALIPSO lidar ratio retrieval over the ocean. <i>Optics Express</i> , 2011, 19, 18696.	3.4	22
26	Implementing the Near- to Far-Field Transformation in the Finite-Difference Time-Domain Method. <i>Applied Optics</i> , 2004, 43, 3738.	2.1	21
27	Effects of ice crystal surface roughness and air bubble inclusions on cirrus cloud radiative properties from remote sensing perspective. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017, 195, 119-131.	2.3	21
28	Zero-backscatter cloak for aspherical particles using a generalized DDA formalism. <i>Optics Express</i> , 2008, 16, 2068.	3.4	19
29	Inversion of multiangular polarimetric measurements over open and coastal ocean waters: a joint retrieval algorithm for aerosol and water-leaving radiance properties. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 3921-3941.	3.1	18
30	Lidar equation for ocean surface and subsurface. <i>Optics Express</i> , 2010, 18, 20862.	3.4	17
31	Inversion of multiangular polarimetric measurements from the ACEPOL campaign: an application of improving aerosol property and hyperspectral ocean color retrievals. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 3939-3956.	3.1	17
32	Quantum-interference effects for gain leveling in optical fibers. <i>Physical Review A</i> , 2002, 65, .	2.5	16
33	Polarized radiance fields under a dynamic ocean surface: a three-dimensional radiative transfer solution. <i>Applied Optics</i> , 2009, 48, 3019.	2.1	16
34	Application of the symplectic finite-difference time-domain method to light scattering by small particles. <i>Applied Optics</i> , 2005, 44, 1650.	2.1	14
35	Contribution of Raman scattering to polarized radiation field in ocean waters. <i>Optics Express</i> , 2015, 23, 23582.	3.4	14
36	Testbed results for scalar and vector radiative transfer computations of light in atmosphere-ocean systems. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020, 242, 106717.	2.3	14

#	ARTICLE	IF	CITATIONS
37	Impulse response solution to the three-dimensional vector radiative transfer equation in atmosphere-ocean systems II The hybrid matrix operator–Monte Carlo method. <i>Applied Optics</i> , 2008, 47, 1063.	2.1	13
38	Adaptive Data Screening for Multi-Angle Polarimetric Aerosol and Ocean Color Remote Sensing Accelerated by Deep Learning. <i>Frontiers in Remote Sensing</i> , 2021, 2, .	3.5	13
39	Advanced angular interpolation in the vector radiative transfer for coupled atmosphere and ocean systems. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2013, 115, 19-27.	2.3	12
40	Radiative Transfer Modeling of Phytoplankton Fluorescence Quenching Processes. <i>Remote Sensing</i> , 2018, 10, 1309.	4.0	12
41	Comment on the transmission matrix for a dielectric interface. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2012, 113, 1981-1984.	2.3	11
42	Uncertainty in the bidirectional reflectance model for oceanic waters. <i>Applied Optics</i> , 2015, 54, 4061.	2.1	11
43	FDTD far-field scattering amplitudes: Comparison of surface and volume integration methods. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2007, 106, 590-594.	2.3	10
44	Neural Network Reflectance Prediction Model for Both Open Ocean and Coastal Waters. <i>Remote Sensing</i> , 2020, 12, 1421.	4.0	10
45	Atmospheric correction over the ocean for hyperspectral radiometers using multi-angle polarimetric retrievals. <i>Optics Express</i> , 2021, 29, 4504.	3.4	10
46	An improved pseudo spherical shell algorithm for vector radiative transfer. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2022, 282, 108132.	2.3	10
47	Uncertainty and interpretation of aerosol remote sensing due to vertical inhomogeneity. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2013, 114, 91-100.	2.3	9
48	Single scattering properties of non-spherical hydrosols modeled by spheroids. <i>Optics Express</i> , 2018, 26, A124.	3.4	8
49	Mueller matrix imaging of targets under an air-sea interface. <i>Applied Optics</i> , 2009, 48, 250.	2.1	7
50	Platform effects on optical variability and prediction of underwater visibility. <i>Applied Optics</i> , 2010, 49, 2784.	2.1	7
51	Cloud remote sensing with EPIC/DSCOVR observations: A sensitivity study with radiative transfer simulations. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019, 230, 56-60.	2.3	7
52	Cloud detection over snow and ice with oxygen A- and B-band observations from the Earth Polychromatic Imaging Camera (EPIC). <i>Atmospheric Measurement Techniques</i> , 2020, 13, 1575-1591.	3.1	7
53	Analysis of Water Vapor Correction for CloudSat W-Band Radar. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2013, 51, 3812-3825.	6.3	5
54	A Radiative Transfer Simulator for PACE: Theory and Applications. <i>Frontiers in Remote Sensing</i> , 2022, 3, .	3.5	5

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55	FDTD solutions for the distribution of radiation from dipoles embedded in dielectric particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 257-261.	2.3	4
56	Exact first order scattering correction for vector radiative transfer in coupled atmosphere and ocean systems. , 2012, , .		4
57	Cloud Detection Over Sunglint Regions With Observations From the Earth Polychromatic Imaging Camera. Frontiers in Remote Sensing, 2021, 2, .	3.5	4
58	Decoupling error for the atmospheric correction in ocean color remote sensing algorithms. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 1958-1963.	2.3	3
59	Equivalence of internal and external mixture schemes of single scattering properties in vector radiative transfer. Applied Optics, 2017, 56, 4105.	2.1	3
60	Monostatic lidar/radar invisibility using coated spheres. Optics Express, 2008, 16, 1431.	3.4	2
61	Augmenting Heritage Ocean-Color Aerosol Models for Enhanced Remote Sensing of Inland and Nearshore Coastal Waters. Frontiers in Remote Sensing, 2022, 3, .	3.5	2
62	The far-field modified uncorrelated single-scattering approximation in light scattering by a small volume element. Optics Express, 2007, 15, 8479.	3.4	1
63	Optical gain and grating structure in the collective atomic recoil laser. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 254, 251-256.	2.1	0
64	Aerosol properties from combined oxygen A band radiances and lidar. , 2015, , .		0