Peng-Wang Zhai

List of Publications by Year
in descending order

64	1,859	304743 22	276875 41
papers	citations	h-index	g-index

64	64	64	1699
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Radiative Transfer Simulator for PACE: Theory and Applications. Frontiers in Remote Sensing, 2022, 3, .	3.5	5
2	An improved pseudo spherical shell algorithm for vector radiative transfer. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 282, 108132.	2.3	10
3	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
4	Atmospheric correction over the ocean for hyperspectral radiometers using multi-angle polarimetric retrievals. Optics Express, 2021, 29, 4504.	3.4	10
5	Efficient multi-angle polarimetric inversion of aerosols and ocean color powered by a deep neural network forward model. Atmospheric Measurement Techniques, 2021, 14, 4083-4110.	3.1	27
6	Cloud Detection Over Sunglint Regions With Observations From the Earth Polychromatic Imaging Camera. Frontiers in Remote Sensing, 2021, 2, .	3.5	4
7	Adaptive Data Screening for Multi-Angle Polarimetric Aerosol and Ocean Color Remote Sensing Accelerated by Deep Learning. Frontiers in Remote Sensing, 2021, 2, .	3.5	13
8	Testbed results for scalar and vector radiative transfer computations of light in atmosphere-ocean systems. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 242, 106717.	2.3	14
9	Neural Network Reflectance Prediction Model for Both Open Ocean and Coastal Waters. Remote Sensing, 2020, 12, 1421.	4.0	10
10	Cloud detectionÂoverÂsnow and iceÂwith oxygen A- and B-band observations from the Earth Polychromatic Imaging Camera (EPIC). Atmospheric Measurement Techniques, 2020, 13, 1575-1591.	3.1	7
11	Inversion of multiangular polarimetric measurements from the ACEPOL campaign: an application of improving aerosol property and hyperspectral ocean color retrievals. Atmospheric Measurement Techniques, 2020, 13, 3939-3956.	3.1	17
12	Going Beyond Standard Ocean Color Observations: Lidar and Polarimetry. Frontiers in Marine Science, 2019, 6, .	2.5	80
13	Atmospheric Correction of Satellite Ocean-Color Imagery During the PACE Era. Frontiers in Earth Science, 2019, 7, .	1.8	98
14	Modeling Atmosphere-Ocean Radiative Transfer: A PACE Mission Perspective. Frontiers in Earth Science, 2019, 7, .	1.8	37
15	Retrieving Aerosol Characteristics From the PACE Mission, Part 2: Multi-Angle and Polarimetry. Frontiers in Environmental Science, 2019, 7, .	3.3	37
16	Retrieving Aerosol Characteristics From the PACE Mission, Part 1: Ocean Color Instrument. Frontiers in Earth Science, 2019, 7, .	1.8	31
17	Inversion of multiangular polarimetric measurements over open and coastal ocean waters: a joint retrieval algorithm for aerosol and water-leaving radiance properties. Atmospheric Measurement Techniques, 2019, 12, 3921-3941.	3.1	18
18	Cloud remote sensing with EPIC/DSCOVR observations: A sensitivity study with radiative transfer simulations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 230, 56-60.	2.3	7

#	Article	IF	Citations
19	Atmospheric correction for hyperspectral ocean color retrieval with application to the Hyperspectral Imager for the Coastal Ocean (HICO). Remote Sensing of Environment, 2018, 204, 60-75.	11.0	83
20	Radiative Transfer Modeling of Phytoplankton Fluorescence Quenching Processes. Remote Sensing, 2018, 10, 1309.	4.0	12
21	Retrieval of aerosol properties and water-leaving reflectance from multi-angular polarimetric measurements over coastal waters. Optics Express, 2018, 26, 8968.	3.4	44
22	Single scattering properties of non-spherical hydrosols modeled by spheroids. Optics Express, 2018, 26, A124.	3.4	8
23	Effects of ice crystal surface roughness and air bubble inclusions on cirrus cloud radiative properties from remote sensing perspective. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 195, 119-131.	2.3	21
24	Water-leaving contribution to polarized radiation field over ocean. Optics Express, 2017, 25, A689.	3.4	30
25	Equivalence of internal and external mixture schemes of single scattering properties in vector radiative transfer. Applied Optics, 2017, 56, 4105.	2.1	3
26	Spectral sea surface reflectance of skylight. Optics Express, 2017, 25, A1.	3.4	34
27	Vector radiative transfer model for coupled atmosphere and ocean systems including inelastic sources in ocean waters. Optics Express, 2017, 25, A223.	3.4	25
28	Joint retrieval of aerosol and water-leaving radiance from multispectral, multiangular and polarimetric measurements over ocean. Atmospheric Measurement Techniques, 2016, 9, 2877-2907.	3.1	69
29	Aerosol properties from combined oxygen A band radiances and lidar. , 2015, , .		0
30	Uncertainty in the bidirectional reflectance model for oceanic waters. Applied Optics, 2015, 54, 4061.	2.1	11
31	Contribution of Raman scattering to polarized radiation field in ocean waters. Optics Express, 2015, 23, 23582.	3.4	14
32	Analysis of Water Vapor Correction for CloudSat W-Band Radar. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 3812-3825.	6.3	5
33	Uncertainty and interpretation of aerosol remote sensing due to vertical inhomogeneity. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 114, 91-100.	2.3	9
34	Advanced angular interpolation in the vector radiative transfer for coupled atmosphere and ocean systems. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 115, 19-27.	2.3	12
35	Inherent optical properties of the coccolithophore: Emiliania huxleyi. Optics Express, 2013, 21, 17625.	3.4	25
36	Comment on the transmission matrix for a dielectric interface. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1981-1984.	2.3	11

#	Article	IF	Citations
37	Cirrus optical depth and lidar ratio retrieval from combined CALIPSOâ€CloudSat observations using ocean surface echo. Journal of Geophysical Research, 2012, 117, .	3.3	44
38	Exact first order scattering correction for vector radiative transfer in coupled atmosphere and ocean systems. , 2012, , .		4
39	An optimization approach for aerosol retrievals using simulated MISR radiances. Atmospheric Research, 2012, 116, 1-14.	4.1	23
40	CALIPSO lidar ratio retrieval over the ocean. Optics Express, 2011, 19, 18696.	3.4	22
41	A vector radiative transfer model for coupled atmosphere and ocean systems with a rough interface. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 1025-1040.	2.3	129
42	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
43	Occurrence, liquid water content, and fraction of supercooled water clouds from combined CALIOP/IIR/MODIS measurements. Journal of Geophysical Research, 2010, 115, .	3.3	250
44	Equivalent path lengths in an integrating cavity: comment. Applied Optics, 2010, 49, 575.	2.1	22
45	Platform effects on optical variability and prediction of underwater visibility. Applied Optics, 2010, 49, 2784.	2.1	7
46	Lidar equation for ocean surface and subsurface. Optics Express, 2010, 18, 20862.	3.4	17
47	A vector radiative transfer model for coupled atmosphere and ocean systems based on successive order of scattering method. Optics Express, 2009, 17, 2057.	3.4	116
48	Mueller matrix imaging of targets under an air-sea interface. Applied Optics, 2009, 48, 250.	2.1	7
49	Polarized radiance fields under a dynamic ocean surface: a three-dimensional radiative transfer solution. Applied Optics, 2009, 48, 3019.	2.1	16
50	Impulse response solution to the three-dimensional vector radiative transfer equation in atmosphere-ocean systems I Monte Carlo method. Applied Optics, 2008, 47, 1037.	2.1	50
51	Impulse response solution to the three-dimensional vector radiative transfer equation in atmosphere-ocean systems II The hybrid matrix operator–Monte Carlo method. Applied Optics, 2008, 47, 1063.	2.1	13
52	Monostatic lidar/radar invisibility using coated spheres. Optics Express, 2008, 16, 1431.	3.4	2
53	Zero-backscatter cloak for aspherical particles using a generalized DDA formalism. Optics Express, 2008, 16, 2068.	3.4	19
54	Invisibility cloaks for irregular particles using coordinate transformations. Optics Express, 2008, 16, 6134.	3.4	55

#	Article	IF	Citations
55	The far-field modified uncorrelated single-scattering approximation in light scattering by a small volume element. Optics Express, 2007, 15, 8479.	3.4	1
56	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
57	FDTD far-field scattering amplitudes: Comparison of surface and volume integration methods. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 590-594.	2.3	10
58	Integrating cavities: temporal response. Applied Optics, 2006, 45, 9053.	2.1	44
59	Application of the symplectic finite-difference time-domain method to light scattering by small particles. Applied Optics, 2005, 44, 1650.	2.1	14
60	Electric and magnetic energy density distributions inside and outside dielectric particles illuminated by a plane electromagnetic wave. Optics Express, 2005, 13, 4554.	3.4	53
61	Implementing the Near- to Far-Field Transformation in the Finite-Difference Time-Domain Method. Applied Optics, 2004, 43, 3738.	2.1	21
62	Quantum-interference effects for gain leveling in optical fibers. Physical Review A, 2002, 65, .	2.5	16
63	Optical bistability in electromagnetically induced grating. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 289, 27-33.	2.1	54
64	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