Xiaodong Zhang

List of Publications by Year in Descending Order

60 papers	1,322 citations	18 h-index	35 g-index
62 ext. papers	1,619 ext. citations	3.1 avg, IF	4.67 L-index

#	Paper	IF	Citations
60	Light Scattering by Pure Water and Seawater: Recent Development. *Journal of Remote Sensing*, **2021**, 2021, 1-11		0
59	Assessment of Normalized Water-Leaving Radiance Derived from GOCI Using AERONET-OC Data. *Remote Sensing*, **2021**, 13, 1640	5	4
58	An operational overview of the EXport Processes in the Ocean from RemoTe Sensing (EXPORTS) Northeast Pacific field deployment. *Elementa*, **2021**, 9,	3.6	6
57	Shape of particle backscattering in the North Pacific Ocean: the □factor. *Applied Optics*, **2021**, 60, 1260-1266	1.7	3
56	Automatic Calibration for CE-QUAL-W2 Model Using Improved Global-Best Harmony Search Algorithm. *Water (Switzerland)*, **2021**, 13, 2308	3	2
55	A three-step semi analytical algorithm (3SAA) for estimating inherent optical properties over oceanic, coastal, and inland waters from remote sensing reflectance. *Remote Sensing of Environment*, **2021**, 263, 112537	13.2	6
54	Deriving the angular response function for backscattering sensors. *Applied Optics*, **2021**, 60, 8676-8687	1.7	0
53	Light scattering by pure seawater at subzero temperatures. *Deep-Sea Research Part I: Oceanographic Research Papers*, **2020**, 162, 103306	2.5	6
52	Changes in Regional Snowfall in Central North America (1961□2017): Mountain Versus Plains. *Geosciences (Switzerland)*, **2020**, 10, 157	2.7	5
51	Mitigating Impact of Devils Lake Flooding on the Sheyenne River Sulfate Concentration. *Journal of the American Water Resources Association*, **2020**, 56, 297-309	2.1	2
50	Experimental Estimates of Optical Backscattering Associated With Submicron Particles in Clear Oceanic Waters. *Geophysical Research Letters*, **2020**, 47, e2020GL087100	4.9	13
49	Variability of relationship between the volume scattering function at 180□and the backscattering coefficient for aquatic particles. *Applied Optics*, **2020**, 59, C31-C41	1.7	1
48	A closure study of ocean inherent optical properties using flow cytometry measurements. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2020**, 241, 106730	2.1	0
47	Light scattering by pure seawater: Effect of pressure. *Deep-Sea Research Part I: Oceanographic Research Papers*, **2019**, 146, 103-109	2.5	11
46	Modeling Atmosphere-Ocean Radiative Transfer: A PACE Mission Perspective. *Frontiers in Earth Science*, **2019**, 7,	3.5	20
45	Light scattering by pure water and seawater: the depolarization ratio and its variation with salinity. *Applied Optics*, **2019**, 58, 991-1004	1.7	11
44	Calibration of the LISST-VSF to derive the volume scattering functions in clear waters. *Optics Express*, **2019**, 27, A1188-A1206	3.3	9

43	Retrieval of Phytoplankton Pigments from Underway Spectrophotometry in the Fram Strait. *Remote Sensing*, **2019**, 11, 318	5	6
42	Macro-scale grid-based and subbasin-based hydrologic modeling: joint simulation and cross-calibration. *Journal of Hydroinformatics*, **2019**, 21, 77-91	2.6	7
41	An overview of approaches and challenges for retrieving marine inherent optical properties from ocean color remote sensing. *Progress in Oceanography*, **2018**, 160, 186-212	3.8	151
40	Identifying the Driving Factors of Water Quality in a Sub-Watershed of the Republican River Basin, Kansas USA. *International Journal of Environmental Research and Public Health*, **2018**, 15,	4.6	3
39	A Brief Review of Mueller Matrix Calculations Associated with Oceanic Particles. *Applied Sciences (Switzerland)*, **2018**, 8, 2686	2.6	2
38	Anomalous Light Scattering by Pure Seawater. *Applied Sciences (Switzerland)*, **2018**, 8, 2679	2.6	4
37	SWAT Modeling of Non-Point Source Pollution in Depression-Dominated Basins under Varying Hydroclimatic Conditions. *International Journal of Environmental Research and Public Health*, **2018**, 15,	4.6	14
36	Diel variations of the attenuation, backscattering and absorption coefficients of four phytoplankton species and comparison with spherical, coated spherical and hexahedral particle optical models. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2018**, 217, 288-304	2.1	14
35	Modeling the inherent optical properties of aquatic particles using an irregular hexahedral ensemble. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2017**, 191, 30-39	2.1	15
34	Size distributions of coastal ocean suspended particulate inorganic matter: Amorphous silica and clay minerals and their dynamics. *Estuarine, Coastal and Shelf Science*, **2017**, 189, 243-251	2.9	7
33	A Bidirectional Subsurface Remote Sensing Reflectance Model Explicitly Accounting for Particle Backscattering Shapes. *Journal of Geophysical Research: Oceans*, **2017**, 122, 8614-8626	3.3	6
32	Modeling Water Quantity and Sulfate Concentrations in the Devils Lake Watershed Using Coupled SWAT and CE-QUAL-W2. *Journal of the American Water Resources Association*, **2017**, 53, 748-760	2.1	13
31	Re-examining the effect of particle phase functions on the remote-sensing reflectance. *Applied Optics*, **2017**, 56, 6881-6888	1.7	8
30	Interpretation of scattering by oceanic particles around 120 degrees and its implication in ocean color studies. *Optics Express*, **2017**, 25, A191-A199	3.3	12
29	Physical-geometric optics method for large size faceted particles. *Optics Express*, **2017**, 25, 24044-24060	3.3	27
28	Evaluating flood potential with GRACE in the United States. *Natural Hazards and Earth System Sciences*, **2016**, 16, 1011-1018	3.9	15
27	A theoretical study of the effect of subsurface oceanic bubbles on the enhanced aerosol optical depth band over the southern oceans as detected from MODIS and MISR. *Atmospheric Measurement Techniques*, **2015**, 8, 2149-2160	4	1
26	Inversion of spectral absorption coefficients to infer phytoplankton size classes, chlorophyll concentration, and detrital matter. *Applied Optics*, **2015**, 54, 5805-16	0.2	20

25	Backscattering by very small particles in coastal waters. *Journal of Geophysical Research: Oceans*, **2015**, 120, 6914-6926	3.3	15
24	New insight into particulate mineral and organic matter in coastal ocean waters through optical inversion. *Estuarine, Coastal and Shelf Science*, **2014**, 149, 1-12	2.9	36
23	TECHNOLOGICAL INNOVATIONS BRINGING SPATIAL TECHNOLOGY TO PRECISION AGRICULTURE IN THE NORTHERN GREAT PLAINS. *Technology and Innovation*, **2014**, 16, 27-35	0.7	
22	Significance of scattering by oceanic particles at angles around 120 degree. *Optics Express*, **2014**, 22, 31329-36	3.3	23
21	Biogeochemical origins of particles obtained from the inversion of the volume scattering function and spectral absorption in coastal waters. *Biogeosciences*, **2013**, 10, 6029-6043	4.6	21
20	Estimating Surface Soil Water Content in the Red River Valley of the North using Landsat 5 TM Data. *Soil Science Society of America Journal*, **2013**, 77, 1133-1143	2.5	7
19	Molecular light scattering by pure seawater **2013**, 225-243		1
18	Comparison of optically derived particle size distributions: scattering over the full angular range versus diffraction at near forward angles. *Applied Optics*, **2012**, 51, 5085-99	1.7	28
17	Effects of Subsurface Drainage on Evapotranspiration for Corn and Soybean Crops in Southeastern North Dakota. *Journal of Irrigation and Drainage Engineering - ASCE*, **2012**, 138, 1060-1067	1.1	15
16	The optical volume scattering function in a surf zone inverted to derive sediment and bubble particle subpopulations. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		50
15	Retrieving composition and sizes of oceanic particle subpopulations from the volume scattering function. *Applied Optics*, **2011**, 50, 1240-59	0.2	43
14	Near real-time high-resolution airborne camera, AEROCam, for precision agriculture. *Geocarto International*, **2011**, 26, 537-551	2.7	3
13	Radiometric Calibration for AgCam. *Remote Sensing*, **2010**, 2, 464-477	5	21
12	Digital Northern Great Plains: A Web-Based System Delivering Near Real Time Remote Sensing Data for Precision Agriculture. *Remote Sensing*, **2010**, 2, 861-873	5	10
11	Effects of temperature and salinity on light scattering by water **2010**,		2
10	Evaluation of MOST functions and roughness length parameterization on sensible heat flux measured by large aperture scintillometer over a corn field. *Agricultural and Forest Meteorology*, **2010**, 150, 1182-1191	5.8	8
9	Zone mapping application for precision-farming: a decision support tool for variable rate application. *Precision Agriculture*, **2010**, 11, 103-114	5.6	49
8	Providing Precision Crop and Range Protection in the US Northern Great Plains **2010**, 367-384		

7	Estimating scattering of pure water from density fluctuation of the refractive index. *Optics Express*, **2009**, 17, 1671-8	3.3	74
6	Scattering by pure seawater: effect of salinity. *Optics Express*, **2009**, 17, 5698-710	3.3	232
5	Scattering by pure seawater at high salinity. *Optics Express*, **2009**, 17, 12685-91	3.3	45
4	Scattering by solutions of major sea salts. *Optics Express*, **2009**, 17, 19580-5	3.3	16
3	Optical influence of ship wakes. *Applied Optics*, **2004**, 43, 3122-32	1.7	27
2	The volume scattering function of natural bubble populations. *Limnology and Oceanography*, **2002**, 47, 1273-1282	4.8	69
1	Influence of bubbles on scattering of light in the ocean. *Applied Optics*, **1998**, 37, 6525-36	1.7	103