Bryan A Franz

List of Publications by Year
in descending order

118 papers	8,581 citations	53794 45 h-index	46799 89 g-index
118 all docs	118 docs citations	118 times ranked	6692 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	Determining the Primary Sources of Uncertainty in Retrieval of Marine Remote Sensing Reflectance From Satellite Ocean Color Sensors. Frontiers in Remote Sensing, 2022, 3, .	3.5	12
3	Vicarious Calibration of the Long Near Infrared Band: Cross-Sensor Differences in Sensitivity. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-9.	6.3	1
4	Optimal estimation framework for ocean color atmospheric correction and pixel-level uncertainty quantification. Applied Optics, 2022, 61, 6453.	1.8	5
5	Sensitivity of Satellite Ocean Color Data to System Vicarious Calibration of the Long Near Infrared Band. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 2562-2578.	6.3	3
6	Atmospheric correction over the ocean for hyperspectral radiometers using multi-angle polarimetric retrievals. Optics Express, 2021, 29, 4504.	3.4	10
7	Analysis of simultaneous aerosol and ocean glint retrieval using multi-angle observations. Atmospheric Measurement Techniques, 2021, 14, 3233-3252.	3.1	6
8	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
9	Cross-calibration of MODIS and VIIRS long near infrared bands for ocean color science and applications. Remote Sensing of Environment, 2021, 260, 112439.	11.0	15
10	Neural Network Reflectance Prediction Model for Both Open Ocean and Coastal Waters. Remote Sensing, 2020, 12, 1421.	4.0	10
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	Multiband Atmospheric Correction Algorithm for Ocean Color Retrievals. Frontiers in Earth Science, 2019, 7, .	1.8	34
13	Going Beyond Standard Ocean Color Observations: Lidar and Polarimetry. Frontiers in Marine Science, 2019, 6, .	2.5	80
14	Atmospheric Correction of Satellite Ocean-Color Imagery During the PACE Era. Frontiers in Earth Science, 2019, 7, .	1.8	98
15	Satellite Ocean Colour: Current Status and Future Perspective. Frontiers in Marine Science, 2019, 6, .	2.5	156
16	Retrieving Aerosol Characteristics From the PACE Mission, Part 2: Multi-Angle and Polarimetry. Frontiers in Environmental Science, 2019, 7, .	3.3	37
17	An Ocean-Colour Time Series for Use in Climate Studies: The Experience of the Ocean-Colour Climate Change Initiative (OC-CCI). Sensors, 2019, 19, 4285.	3.8	239
18	Retrieving Aerosol Characteristics From the PACE Mission, Part 1: Ocean Color Instrument. Frontiers in Earth Science, 2019, 7, .	1.8	31

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19	MODIS Aqua Reflective Solar Band Calibration for NASAâ€™s R2018 Ocean Color Products. Remote Sensing, 2019, 11, 2187.	4.0	10
20	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
21	Uncertainties in the Geostationary Ocean Color Imager (GOCI) Remote Sensing Reflectance for Assessing Diurnal Variability of Biogeochemical Processes. Remote Sensing, 2019, 11, 295.	4.0	22
22	The Plankton, Aerosol, Cloud, Ocean Ecosystem Mission: Status, Science, Advances. Bulletin of the American Meteorological Society, 2019, 100, 1775-1794.	3.3	199
23	Vicarious calibration of GOCI for the SeaDAS ocean color retrieval. International Journal of Remote Sensing, 2019, 40, 3984-4001.	2.9	9
24	Improving Satellite Global Chlorophyll a Data Products Through Algorithm Refinement and Data Recovery. Journal of Geophysical Research: Oceans, 2019, 124, 1524-1543.	2.6	58
25	The NASA OBPG 2020 on-orbit calibration of SNPP VIIRS for ocean color applications. , 2019, , .		1
26	Satellite sensor requirements for monitoring essential biodiversity variables of coastal ecosystems. Ecological Applications, 2018, 28, 749-760.	3.8	116
27	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
28	Toward Long-Term Aquatic Science Products from Heritage Landsat Missions. Remote Sensing, 2018, 10, 1337.	4.0	26
29	Radiative Transfer Modeling of Phytoplankton Fluorescence Quenching Processes. Remote Sensing, 2018, 10, 1309.	4.0	12
30	Retrieval of aerosol properties and water-leaving reflectance from multi-angular polarimetric measurements over coastal waters. Optics Express, 2018, 26, 8968.	3.4	44
31	Satellite Radiation Products for Ocean Biology and Biogeochemistry: Needs, State-of-the-Art, Gaps, Development Priorities, and Opportunities. Frontiers in Marine Science, 2018, 5, .	2.5	30
32	Estimating photosynthetically available radiation at the ocean surface from EPIC/DSCOVR data. , 2018, , .		5
33	Landsat 8 remote sensing reflectance (Rrs) products: Evaluations, intercomparisons, and enhancements. Remote Sensing of Environment, 2017, 190, 289-301.	11.0	120
34	Water-leaving contribution to polarized radiation field over ocean. Optics Express, 2017, 25, A689.	3.4	30
35	Vector radiative transfer model for coupled atmosphere and ocean systems including inelastic sources in ocean waters. Optics Express, 2017, 25, A223.	3.4	25
36	Global trends in ocean phytoplankton: a new assessment using revised ocean colour data. Remote Sensing Letters, 2017, 8, 1102-1111.	1.4	42

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37	Advances in the on-orbit calibration of SNPP VIIRS for ocean color applications. , 2017, , .		2
38	The Sensitivity of SeaWiFS Ocean Color Retrievals to Aerosol Amount and Type. Journal of Atmospheric and Oceanic Technology, 2016, 33, 1185-1209.	1.3	19
39	Uncertainties in coastal ocean color products: Impacts of spatial sampling. Remote Sensing of Environment, 2016, 181, 14-26.	11.0	31
40	Cloud motion in the GOCI/COMS ocean colour data. International Journal of Remote Sensing, 2016, 37, 4948-4963.	2.9	6
41	System vicarious calibration for ocean color climate change applications: Requirements for in situ data. Remote Sensing of Environment, 2015, 159, 361-369.	11.0	71
42	Chlorophyll variability in the oligotrophic gyres: mechanisms, seasonality and trends. Frontiers in Marine Science, 2015, 2, .	2.5	87
43	A semianalytical ocean color inversion algorithm with explicit water column depth and substrate reflectance parameterization. Journal of Geophysical Research: Oceans, 2015, 120, 1741-1770.	2.6	38
44	The Ocean Colour Climate Change Initiative: I. A methodology for assessing atmospheric correction processors based on in-situ measurements. Remote Sensing of Environment, 2015, 162, 242-256.	11.0	66
45	The Ocean Colour Climate Change Initiative: II. Spatial and temporal homogeneity of satellite data retrieval due to systematic effects in atmospheric correction processors. Remote Sensing of Environment, 2015, 162, 257-270.	11.0	26
46	Ocean color measurements with the Operational Land Imager on Landsat-8: implementation and evaluation in SeaDAS. Journal of Applied Remote Sensing, 2015, 9, 096070.	1.3	116
47	On-orbit calibration of the Suomi National Polar-Orbiting Partnership Visible Infrared Imaging Radiometer Suite for ocean color applications. Applied Optics, 2015, 54, 1984.	1.8	58
48	Updates to the on-orbit calibration of SNPP VIIRS for ocean color applications. Proceedings of SPIE, 2015, , .	0.8	5
49	Contribution of Raman scattering to polarized radiation field in ocean waters. Optics Express, 2015, 23, 23582.	3.4	14
50	The Ocean Colour Climate Change Initiative: III. A round-robin comparison on in-water bio-optical algorithms. Remote Sensing of Environment, 2015, 162, 271-294.	11.0	161
51	Scientific impact of MODIS C5 calibration degradation and C6+ improvements. Atmospheric Measurement Techniques, 2014, 7, 4353-4365.	3.1	185
52	Corrections to MODIS Terra calibration and polarization trending derived from ocean color products. Proceedings of SPIE, 2014, , .	0.8	8
53	Calibration uncertainty in ocean color satellite sensors and trends in long-term environmental records. , 2014, , .		6
54	Corrections to the MODIS Aqua Calibration Derived From MODIS Aqua Ocean Color Products. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 6534-6541.	6.3	29

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55	Assessment of Satellite Ocean Colour Radiometry and Derived Geophysical Products. Experimental Methods in the Physical Sciences, 2014, 47, 609-638.	0.1	11
56	Estimating variability in the quantum yield of Sun-induced chlorophyll fluorescence: A global analysis of oceanic waters. Remote Sensing of Environment, 2013, 132, 238-253.	11.0	31
57	Regional to global assessments of phytoplankton dynamics from the SeaWiFS mission. Remote Sensing of Environment, 2013, 135, 77-91.	11.0	254
58	Spatially resolving ocean color and sediment dispersion in river plumes, coastal systems, and continental shelf waters. Remote Sensing of Environment, 2013, 137, 212-225.	11.0	76
59	A synthesis of VIIRS solar and lunar calibrations. , 2013, , .		7
60	Generalized ocean color inversion model for retrieving marine inherent optical properties. Applied Optics, 2013, 52, 2019.	1.8	366
61	Retrieving marine inherent optical properties from satellites using temperature and salinity-dependent backscattering by seawater. Optics Express, 2013, 21, 32611.	3.4	32
62	State of the Climate in 2012. Bulletin of the American Meteorological Society, 2013, 94, S1-S258.	3.3	129
63	Dynamic range and sensitivity requirements of satellite ocean color sensors: learning from the past. Applied Optics, 2012, 51, 6045.	1.8	168
64	On-orbit calibration of SeaWiFS. Applied Optics, 2012, 51, 8702.	1.8	63
65	Ocean Colour Climate Change Initiative — Approach and initial results. , 2012, , .		20
66	A time series of photosynthetically available radiation at the ocean surface from SeaWiFS and MODIS data. Proceedings of SPIE, 2012, , .	0.8	43
67	Chlorophyll aalgorithms for oligotrophic oceans: A novel approach based on threeâ€band reflectance difference. Journal of Geophysical Research, 2012, 117, .	3.3	649
68	Detection of coccolithophore blooms in ocean color satellite imagery: A generalized approach for use with multiple sensors. Remote Sensing of Environment, 2012, 117, 249-263.	11.0	104
69	Suomi NPP VIIRS ocean color data product early mission assessment. , 2012, , .		6
70	VIIRS on-orbit calibration for ocean color data processing. , 2012, , .		8
71	Corrections to the Calibration of MODIS Aqua Ocean Color Bands Derived From SeaWiFS Data. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 310-319.	6.3	61
72	Impacts of Cross-Platform Vicarious Calibration on the Deep Blue Aerosol Retrievals for Moderate Resolution Imaging Spectroradiometer Aboard Terra. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4877-4888.	6.3	21

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73	New aerosol models for the retrieval of aerosol optical thickness and normalized water-leaving radiances from the SeaWiFS and MODIS sensors over coastal regions and open oceans: publisherâ€™s note. Applied Optics, 2011, 50, 626.	2.1	4
74	Assessment of MERIS reflectance data as processed with SeaDAS over the European seas. Optics Express, 2011, 19, 25657.	3.4	31
75	Radiometric quality of the MODIS bands at 667 and 678nm. Proceedings of SPIE, 2011, , .	0.8	2
76	Assessment of NPP VIIRS ocean color data products: hope and risk. , 2011, , .		2
77	The VIIRS ocean data simulator enhancements and results. Proceedings of SPIE, 2011, , .	0.8	0
78	Uncertainty assessment of the SeaWiFS on-orbit calibration. Proceedings of SPIE, 2011, , .	0.8	14
79	Some insights of spectral optimization in ocean color inversion. , 2011, , .		0
80	Adjustments to the MODIS Terra radiometric calibration and polarization sensitivity in the 2010 reprocessing. , 2011, , .		16
81	Evaluation of shortwave infrared atmospheric correction for ocean color remote sensing of Chesapeake Bay. Remote Sensing of Environment, 2010, 114, 2238-2247.	11.0	83
82	Century of phytoplankton change. Nature, 2010, 466, 569-571.	27.8	39
83	Corrections to the calibration of MODIS Aqua ocean color bands derived from SeaWiFS data. , 2010, , .		1
84	New aerosol models for the retrieval of aerosol optical thickness and normalized water-leaving radiances from the SeaWiFS and MODIS sensors over coastal regions and open oceans. Applied Optics, 2010, 49, 5545.	2.1	256
85	Estimation of near-infrared water-leaving reflectance for satellite ocean color data processing. Optics Express, 2010, 18, 7521.	3.4	340
86	Satellite-detected fluorescence reveals global physiology of ocean phytoplankton. Biogeosciences, 2009, 6, 779-794.	3.3	280
87	Regional and seasonal variability of chlorophyll-a in Chesapeake Bay as observed by SeaWiFS and MODIS-Aqua. Remote Sensing of Environment, 2009, 113, 1319-1330.	11.0	130
88	Spectral optimization for constituent retrieval in Case 2 waters I: Implementation and performance. Remote Sensing of Environment, 2009, 113, 571-587.	11.0	51
89	Detector dependency of MODIS polarization sensitivity derived from on-orbit characterization. , 2009, , .		4
90	A VIIRS ocean data simulator. , 2009, , .		2

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91	Influence of thin cirrus clouds on ocean color products. Proceedings of SPIE, 2009, , .	0.8	2
92	Remote sensing of ocean color: Assessment of the water-leaving radiance bidirectional effects on the atmospheric diffuse transmittance for SeaWiFS and MODIS intercomparisons. Remote Sensing of Environment, 2008, 112, 2677-2685.	11.0	42
93	Sources and assumptions for the vicarious calibration of ocean color satellite observations. Applied Optics, 2008, 47, 2035.	2.1	49
94	Cross calibration of ocean-color bands from Moderate Resolution Imaging Spectroradiometer on Terra platform. Applied Optics, 2008, 47, 6796.	2.1	95
95	Moderate Resolution Imaging Spectroradiometer on Terra: limitations for ocean color applications. Journal of Applied Remote Sensing, 2008, 2, 023525.	1.3	66
96	Relationships between the surface concentration of particulate organic carbon and optical properties in the eastern South Pacific and eastern Atlantic Oceans. Biogeosciences, 2008, 5, 171-201.	3.3	333
97	Correction of subframe striping in high resolution MODIS ocean color products. Proceedings of SPIE, 2007, , .	0.8	4
98	Approach for the long-term spatial and temporal evaluation of ocean color satellite data products in a coastal environment. , 2007, , .		10
99	Utility of MODIS-Terra for ocean color applications. Proceedings of SPIE, 2007, , .	0.8	11
100	On-orbit calibration of SeaWiFS: revised temperature and gain corrections. , 2007, , .		5
101	Sensor-independent approach to the vicarious calibration of satellite ocean color radiometry. Applied Optics, 2007, 46, 5068.	2.1	291
102	On-orbit vicarious calibration of ocean color sensors using an ocean surface reflectance model. Applied Optics, 2007, 46, 5649.	2.1	39
103	Atmospheric correction for NO_2 absorption in retrieving water-leaving reflectances from the SeaWiFS and MODIS measurements. Applied Optics, 2007, 46, 6504.	2.1	43
104	SeaWiFS on-orbit gain and detector calibrations: effect on ocean products. Applied Optics, 2007, 46, 6733.	2.1	4
105	Examining the consistency of products derived from various ocean color sensors in open ocean (Case) Tj ETQq1 1 0.784314 rgBT /Ov 69-88.	11.0	540
106	Moderate-Resolution Imaging Spectroradiometer ocean color polarization correction. Applied Optics, 2005, 44, 5524.	2.1	70
107	The continuity of ocean color measurements from SeaWiFS to MODIS. , 2005, , .		49
108	SIMBIOS program in support of ocean color missions: 1997-2003. , 2003, 5155, 49.		7

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109	New results of ground target based calibration of MOS on IRS. , 2002, 4814, 327.		0
110	Ocean-color optical property data derived from the Japanese Ocean Color and Temperature Scanner and the French Polarization and Directionality of the Earthâ€™s Reflectances: a comparison study. Applied Optics, 2002, 41, 974.	2.1	61
111	Effects of spectral bandpass on SeaWiFS-retrieved near-surface optical properties of the ocean. Applied Optics, 2001, 40, 343.	2.1	42
112	Comparing the ocean color measurements between MOS and SeaWiFS: a vicarious intercalibration approach for MOS. IEEE Transactions on Geoscience and Remote Sensing, 2000, 38, 184-197.	6.3	76
113	TheCOBEDiffuse Infrared Background Experiment Search for the Cosmic Infrared Background. II. Model of the Interplanetary Dust Cloud. Astrophysical Journal, 1998, 508, 44-73.	4.5	427
114	The Three-Dimensional Structure of the Zodiacal Dust Bands. Icarus, 1997, 127, 461-484.	2.5	64
115	Observational confirmation of a circumsolar dust ring by the COBE satellite. Nature, 1995, 374, 521-523.	27.8	151
116	The Ratio of H 2 Column Density to 12CO Intensity in the Vicinity of the Galactic Center. Astrophysical Journal, 1995, 452, 262.	4.5	113
117	Large-scale characteristics of interstellar dust from COBE DIRBE observations. Astrophysical Journal, 1994, 428, 638.	4.5	110
118	Genesis and Evolution of NASAâ€™s Satellite Ocean Color Program. Frontiers in Remote Sensing, 0, 3, .	3.5	9