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	Chlorophyll aalgorithms for oligotrophic oceans: A novel approach based on threeâ€band reflectance difference. Journal of Geophysical Research, 2012, 117, .	3.3	649
2	Examining the consistency of products derived from various ocean color sensors in open ocean (Case) Tj ETQq0 0 0 rgBT /Overlock 10 T 69-88.	11.0	540
3	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
4	Generalized ocean color inversion model for retrieving marine inherent optical properties. Applied Optics, 2013, 52, 2019.	1.8	366
5	Estimation of near-infrared water-leaving reflectance for satellite ocean color data processing. Optics Express, 2010, 18, 7521.	3.4	340
6	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
7	Sensor-independent approach to the vicarious calibration of satellite ocean color radiometry. Applied Optics, 2007, 46, 5068.	2.1	291
8	Satellite-detected fluorescence reveals global physiology of ocean phytoplankton. Biogeosciences, 2009, 6, 779-794.	3.3	280
9	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
10	Regional to global assessments of phytoplankton dynamics from the SeaWiFS mission. Remote Sensing of Environment, 2013, 135, 77-91.	11.0	254
11	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
12	The Plankton, Aerosol, Cloud, Ocean Ecosystem Mission: Status, Science, Advances. Bulletin of the American Meteorological Society, 2019, 100, 1775-1794.	3.3	199
13	Scientific impact of MODIS C5 calibration degradation and C6+ improvements. Atmospheric Measurement Techniques, 2014, 7, 4353-4365.	3.1	185
14	Dynamic range and sensitivity requirements of satellite ocean color sensors: learning from the past. Applied Optics, 2012, 51, 6045.	1.8	168
15	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
16	Satellite Ocean Colour: Current Status and Future Perspective. Frontiers in Marine Science, 2019, 6, .	2.5	156
17	Observational confirmation of a circumsolar dust ring by the COBE satellite. Nature, 1995, 374, 521-523.	27.8	151
18	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

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19	State of the Climate in 2012. Bulletin of the American Meteorological Society, 2013, 94, S1-S258.	3.3	129
20	Landsat 8 remote sensing reflectance (Rrs) products: Evaluations, intercomparisons, and enhancements. Remote Sensing of Environment, 2017, 190, 289-301.	11.0	120
21	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
22	Satellite sensor requirements for monitoring essential biodiversity variables of coastal ecosystems. Ecological Applications, 2018, 28, 749-760.	3.8	116
23	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
24	Large-scale characteristics of interstellar dust from COBE DIRBE observations. Astrophysical Journal, 1994, 428, 638.	4.5	110
25	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
26	Atmospheric Correction of Satellite Ocean-Color Imagery During the PACE Era. Frontiers in Earth Science, 2019, 7, .	1.8	98
27	Cross calibration of ocean-color bands from Moderate Resolution Imaging Spectroradiometer on Terra platform. Applied Optics, 2008, 47, 6796.	2.1	95
28	Chlorophyll variability in the oligotrophic gyres: mechanisms, seasonality and trends. Frontiers in Marine Science, 2015, 2, .	2.5	87
29	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
30	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
31	Going Beyond Standard Ocean Color Observations: Lidar and Polarimetry. Frontiers in Marine Science, 2019, 6, .	2.5	80
32	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
33	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
34	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
35	Moderate-Resolution Imaging Spectroradiometer ocean color polarization correction. Applied Optics, 2005, 44, 5524.	2.1	70
36	Moderate Resolution Imaging Spectroradiometer on Terra: limitations for ocean color applications. Journal of Applied Remote Sensing, 2008, 2, 023525.	1.3	66

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37	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
38	The Three-Dimensional Structure of the Zodiacal Dust Bands. Icarus, 1997, 127, 461-484.	2.5	64
39	On-orbit calibration of SeaWiFS. Applied Optics, 2012, 51, 8702.	1.8	63
40	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
41	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
42	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
43	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
44	Spectral optimization for constituent retrieval in Case 2 waters I: Implementation and performance. Remote Sensing of Environment, 2009, 113, 571-587.	11.0	51
45	The continuity of ocean color measurements from SeaWiFS to MODIS. , 2005, , .		49
46	Sources and assumptions for the vicarious calibration of ocean color satellite observations. Applied Optics, 2008, 47, 2035.	2.1	49
47	Retrieval of aerosol properties and water-leaving reflectance from multi-angular polarimetric measurements over coastal waters. Optics Express, 2018, 26, 8968.	3.4	44
48	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
49	A time series of photosynthetically available radiation at the ocean surface from SeaWiFS and MODIS data. Proceedings of SPIE, 2012, , .	0.8	43
50	Effects of spectral bandpass on SeaWiFS-retrieved near-surface optical properties of the ocean. Applied Optics, 2001, 40, 343.	2.1	42
51	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
52	Global trends in ocean phytoplankton: a new assessment using revised ocean colour data. Remote Sensing Letters, 2017, 8, 1102-1111.	1.4	42
53	On-orbit vicarious calibration of ocean color sensors using an ocean surface reflectance model. Applied Optics, 2007, 46, 5649.	2.1	39
54	Century of phytoplankton change. Nature, 2010, 466, 569-571.	27.8	39

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55	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
56	Retrieving Aerosol Characteristics From the PACE Mission, Part 2: Multi-Angle and Polarimetry. Frontiers in Environmental Science, 2019, 7, .	3.3	37
57	Multiband Atmospheric Correction Algorithm for Ocean Color Retrievals. Frontiers in Earth Science, 2019, 7, .	1.8	34
58	Retrieving marine inherent optical properties from satellites using temperature and salinity-dependent backscattering by seawater. Optics Express, 2013, 21, 32611.	3.4	32
59	Assessment of MERIS reflectance data as processed with SeaDAS over the European seas. Optics Express, 2011, 19, 25657.	3.4	31
60	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
61	Uncertainties in coastal ocean color products: Impacts of spatial sampling. Remote Sensing of Environment, 2016, 181, 14-26.	11.0	31
62	Retrieving Aerosol Characteristics From the PACE Mission, Part 1: Ocean Color Instrument. Frontiers in Earth Science, 2019, 7, .	1.8	31
63	Water-leaving contribution to polarized radiation field over ocean. Optics Express, 2017, 25, A689.	3.4	30
64	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
65	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
66	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
67	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
68	Toward Long-Term Aquatic Science Products from Heritage Landsat Missions. Remote Sensing, 2018, 10, 1337.	4.0	26
69	Vector radiative transfer model for coupled atmosphere and ocean systems including inelastic sources in ocean waters. Optics Express, 2017, 25, A223.	3.4	25
70	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
71	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
72	Ocean Colour Climate Change Initiative — Approach and initial results. , 2012, , .		20

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73	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
74	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
75	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
76	Adjustments to the MODIS Terra radiometric calibration and polarization sensitivity in the 2010 reprocessing. , 2011, , .		16
77	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
78	Uncertainty assessment of the SeaWiFS on-orbit calibration. Proceedings of SPIE, 2011, , .	0.8	14
79	Contribution of Raman scattering to polarized radiation field in ocean waters. Optics Express, 2015, 23, 23582.	3.4	14
80	Radiative Transfer Modeling of Phytoplankton Fluorescence Quenching Processes. Remote Sensing, 2018, 10, 1309.	4.0	12
81	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
82	Utility of MODIS-Terra for ocean color applications. Proceedings of SPIE, 2007, , .	0.8	11
83	Assessment of Satellite Ocean Colour Radiometry and Derived Geophysical Products. Experimental Methods in the Physical Sciences, 2014, 47, 609-638.	0.1	11
84	Approach for the long-term spatial and temporal evaluation of ocean color satellite data products in a coastal environment. , 2007, , .		10
85	MODIS Aqua Reflective Solar Band Calibration for NASAâ€™s R2018 Ocean Color Products. Remote Sensing, 2019, 11, 2187.	4.0	10
86	Neural Network Reflectance Prediction Model for Both Open Ocean and Coastal Waters. Remote Sensing, 2020, 12, 1421.	4.0	10
87	Atmospheric correction over the ocean for hyperspectral radiometers using multi-angle polarimetric retrievals. Optics Express, 2021, 29, 4504.	3.4	10
88	Vicarious calibration of GOCI for the SeaDAS ocean color retrieval. International Journal of Remote Sensing, 2019, 40, 3984-4001.	2.9	9
89	Genesis and Evolution of NASAâ€™s Satellite Ocean Color Program. Frontiers in Remote Sensing, 0, 3, .	3.5	9
90	VIIRS on-orbit calibration for ocean color data processing. , 2012, , .		8

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91	Corrections to MODIS Terra calibration and polarization trending derived from ocean color products. Proceedings of SPIE, 2014, , .	0.8	8
92	SIMBIOS program in support of ocean color missions: 1997-2003. , 2003, 5155, 49.		7
93	A synthesis of VIIRS solar and lunar calibrations. , 2013, , .		7
94	Suomi NPP VIIRS ocean color data product early mission assessment. , 2012, , .		6
95	Calibration uncertainty in ocean color satellite sensors and trends in long-term environmental records. , 2014, , .		6
96	Cloud motion in the GOCI/COMS ocean colour data. International Journal of Remote Sensing, 2016, 37, 4948-4963.	2.9	6
97	Analysis of simultaneous aerosol and ocean glint retrieval using multi-angle observations. Atmospheric Measurement Techniques, 2021, 14, 3233-3252.	3.1	6
98	On-orbit calibration of SeaWiFS: revised temperature and gain corrections. , 2007, , .		5
99	Updates to the on-orbit calibration of SNPP VIIRS for ocean color applications. Proceedings of SPIE, 2015, , .	0.8	5
100	Estimating photosynthetically available radiation at the ocean surface from EPIC/DSCOVR data. , 2018, , .		5
101	A Radiative Transfer Simulator for PACE: Theory and Applications. Frontiers in Remote Sensing, 2022, 3, .	3.5	5
102	Optimal estimation framework for ocean color atmospheric correction and pixel-level uncertainty quantification. Applied Optics, 2022, 61, 6453.	1.8	5
103	Correction of subframe striping in high resolution MODIS ocean color products. Proceedings of SPIE, 2007, , .	0.8	4
104	SeaWiFS on-orbit gain and detector calibrations: effect on ocean products. Applied Optics, 2007, 46, 6733.	2.1	4
105	Detector dependency of MODIS polarization sensitivity derived from on-orbit characterization. , 2009, , .		4
106	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
107	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
108	A VIIRS ocean data simulator. , 2009, , .		2

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109	Influence of thin cirrus clouds on ocean color products. Proceedings of SPIE, 2009, , .	0.8	2
110	Radiometric quality of the MODIS bands at 667 and 678nm. Proceedings of SPIE, 2011, , .	0.8	2
111	Assessment of NPP VIIRS ocean color data products: hope and risk. , 2011, , .		2
112	Advances in the on-orbit calibration of SNPP VIIRS for ocean color applications. , 2017, , .		2
113	Corrections to the calibration of MODIS Aqua ocean color bands derived from SeaWiFS data. , 2010, , .		1
114	The NASA OBPG 2020 on-orbit calibration of SNPP VIIRS for ocean color applications. , 2019, , .		1
115	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
116	New results of ground target based calibration of MOS on IRS. , 2002, 4814, 327.		0
117	The VIIRS ocean data simulator enhancements and results. Proceedings of SPIE, 2011, , .	0.8	0
118	Some insights of spectral optimization in ocean color inversion. , 2011, , .		0