Charles M Bachmann

List of Publications by Year
in descending order

49 papers	1,262 citations	567281 15 h-index	361022 35 g-index
49 all docs	49 docs citations	49 times ranked	910 citing authors

#	Article	IF	Citations
1	Leaf Bidirectional Transmittance Distribution Function Estimates and Models for Select Deciduous Tree Species. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	6.3	3
2	Mapping barrier island soil moisture using a radiative transfer model of hyperspectral imagery from an unmanned aerial system. Scientific Reports, 2021, 11, 3270.	3.3	12
3	Assessing Salt Marsh Vulnerability Using High-Resolution Hyperspectral Imagery. Remote Sensing, 2020, 12, 2938.	4.0	6
4	Retrieval of Sediment Filling Factor in a Salt Panne from Multi-View Hyperspectral Imagery. Remote Sensing, 2020, 12, 422.	4.0	6
5	On Leaf BRDF Estimates and Their Fit to Microfacet Models. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 1761-1771.	4.9	10
6	Observed Relationship Between BRF Spectral-Continuum Variance and Macroscopic Roughness of Clay Sediments. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 6726-6740.	6.3	5
7	A Novel Approach for Deriving LAI of Salt Marsh Vegetation Using Structure From Motion and Multiangular Spectra. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 599-613.	4.9	12
8	Retrieval of Salt Marsh Above-Ground Biomass from High-Spatial Resolution Hyperspectral Imagery Using PROSAIL. Remote Sensing, 2019, 11, 1385.	4.0	14
9	Assessing Effects of Azimuthally Oriented Roughness on Directional Reflectance of Sand. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 1012-1025.	4.9	10
10	A Low-Rate Video Approach to Hyperspectral Imaging of Dynamic Scenes. Journal of Imaging, 2019, 5, 6.	3.0	13
11	Retrieval of Sediment Fill Factor by Inversion of a Modified Hapke Model Applied to Sampled HCRF from Airborne and Satellite Imagery. Remote Sensing, 2018, 10, 1758.	4.0	12
12	Fully automated laboratory and field-portable goniometer used for performing accurate and precise multiangular reflectance measurements. Journal of Applied Remote Sensing, 2017, 11, 1.	1.3	18
13	Overview of the 2015 Algodones Sand Dunes field campaign to support sensor intercalibration. Journal of Applied Remote Sensing, 2017, 12, 1.	1.3	9
14	Modeling and intercomparison of field and laboratory hyperspectral goniometer measurements with G-LiHT imagery of the Algodones Dunes. Journal of Applied Remote Sensing, 2017, 12, 1.	1.3	21
15	Flexible field goniometer system: the Goniometer for Outdoor Portable Hyperspectral Earth Reflectance. Journal of Applied Remote Sensing, 2016, 10, 036012.	1.3	18
16	Modeling geophysical properties of the Algodones Dunes from field and laboratory hyperspectral goniometer measurements using GRIT and comparison with G-LiHT imagery. Proceedings of SPIE, 2016, , .	0.8	3
17	The opposition effect and its relationship to sediment density in BRDF measurements from the Algodones Sand Dunes System. , 2016, , .		0
18	How many spectral bands are necessary to describe the directional reflectance of beach sands?. Proceedings of SPIE, 2016, , .	0.8	0

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19	A next generation field-portable goniometer system. Proceedings of SPIE, 2016, , .	0.8	8
20	A hyperspectral vehicle BRDF sampling experiment. , 2016, , .		0
21	Wavelength dependence of the bidirectional reflectance distribution function (BRDF) of beach sands. Applied Optics, 2015, 54, F243.	2.1	32
22	Soil signature simulation of complex mixtures and particle size distributions. Optical Engineering, 2015, 54, 094103.	1.0	5
23	Improved modeling of multiple scattering in hyperspectral BRDF of coastal sediments observed using the Goniometer of the Rochester Institute of Technology (GRIT). Proceedings of SPIE, 2015, , .	0.8	6
24	Influence of density on hyperspectral BRDF signatures of granular materials. Proceedings of SPIE, 2015, , .	0.8	0
25	Retrieval of sand density from hyperspectral BRDF. , 2014, , .		0
26	Phase angle dependence of sand density observable in hyperspectral reflectance. Remote Sensing of Environment, 2014, 150, 53-65.	11.0	22
27	Tidal constituents from remote sensing image sequences. Estuarine, Coastal and Shelf Science, 2013, 117, 159-167.	2.1	1
28	A dual-spectrometer approach to reflectance measurements under sub-optimal sky conditions. Optics Express, 2012, 20, 8959.	3.4	30
29	Linking goniometer measurements to hyperspectral and multisensor imagery for retrieval of beach properties and coastal characterization. , 2012, , .		2
30	A Multi-Sensor Approach to Coastal Characterization. , 2012, , .		1
31	Manifold coordinate representations of hyperspectral imagery: Improvements in algorithm performance and computational efficiency. , 2010, , .		5
32	Geodatabase development to support hyperspectral imagery exploitation. , 2010, , .		1
33	Retrieval of Substrate Bearing Strength from Hyperspectral Imagery during the Virginia Coast Reserve (VCRâ€™07) Multi-Sensor Campaign. Marine Geodesy, 2010, 33, 101-116.	2.0	18
34	Coastal characterization from hyperspectral imagery: An intercomparison of retrieval properties from three coast types. , 2010, , .		4
35	Bathymetry Retrieval from Hyperspectral Imagery in the Very Shallow Water Limit: A Case Study from the 2007 Virginia Coast Reserve (VCR'07) Multi-Sensor Campaign. Marine Geodesy, 2010, 33, 53-75.	2.0	26
36	Bathymetric Retrieval From Hyperspectral Imagery Using Manifold Coordinate Representations. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 884-897.	6.3	37

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37	Automated Estimation of Spectral Neighborhood Size in Manifold Coordinate Representations of Hyperspectral Imagery: Implications for Anomaly Finding, Bathymetry Retrieval, and Land Applications. , 2008, , .		6
38	Remote Sensing Retrieval of Substrate Bearing Strength from Hyperspectral Imagery at the Virginia Coast Reserve (VCR'07) Multi-Sensor Campaign. , 2008, , .		5
39	Bathymetric retrieval from manifold coordinate representations of hyperspectral imagery. , 2007, , .		10
40	Cross-Scale Patterns in Shrub Thicket Dynamics in the Virginia Barrier Complex. Ecosystems, 2007, 10, 854-863.	3.4	47
41	Improved Manifold Coordinate Representations of Large-Scale Hyperspectral Scenes. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 2786-2803.	6.3	139
42	Manifold learning techniques for the analysis of hyperspectral ocean data. , 2005, , .		17
43	Exploiting manifold geometry in hyperspectral imagery. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 441-454.	6.3	369
44	Improving the performance of classifiers in high-dimensional remote sensing applications: an adaptive resampling strategy for error-prone exemplars (ARESEPE). IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 2101-2112.	6.3	16
45	A credit assignment approach to fusing classifiers of multiseason hyperspectral imagery. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 2488-2499.	6.3	27
46	Automatic classification of land cover on Smith Island, VA, using HyMAP imagery. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 2313-2330.	6.3	61
47	Projection pursuit classification of multiband polarimetric SAR land images. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 2380-2386.	6.3	15
48	Automatic recognition of ISAR ship images. IEEE Transactions on Aerospace and Electronic Systems, 1996, 32, 1392-1404.	4.7	162
49	Unsupervised BCM projection pursuit algorithms for classification of simulated radar presentations. Neural Networks, 1994, 7, 709-728.	5.9	18