Alexander Damm

List of Publications by Year
in descending order

74 papers	4,448 citations	117453 34 h-index	114278 63 g-index
76 all docs	76 docs citations	76 times ranked	4142 citing authors

#	Article	IF	Citations
1	A first assessment of the impact of the extreme 2018 summer drought on Central European forests. Basic and Applied Ecology, 2020, 45, 86-103.	1.2	482
2	Remote sensing of solar-induced chlorophyll fluorescence (SIF) in vegetation: 50â€¯years of progress. Remote Sensing of Environment, 2019, 231, 111177.	4.6	372
3	Far-red sun-induced chlorophyll fluorescence shows ecosystem-specific relationships to gross primary production: An assessment based on observational and modeling approaches. Remote Sensing of Environment, 2015, 166, 91-105.	4.6	263
4	Remote sensing of sunâ€induced fluorescence to improve modeling of diurnal courses of gross primary production (GPP). Global Change Biology, 2010, 16, 171-186.	4.2	246
5	Sunâ€induced fluorescence â€“ a new probe of photosynthesis: First maps from the imaging spectrometerÂHyPlant. Global Change Biology, 2015, 21, 4673-4684.	4.2	213
6	Red and far red Sunâ€induced chlorophyll fluorescence as a measure of plant photosynthesis. Geophysical Research Letters, 2015, 42, 1632-1639.	1.5	171
7	Advanced radiometry measurements and Earth science applications with the Airborne Prism Experiment (APEX). Remote Sensing of Environment, 2015, 158, 207-219.	4.6	154
8	Potential of the TROPOspheric Monitoring Instrument (TROPOMI) onboard the Sentinel-5 Precursor for the monitoring of terrestrial chlorophyll fluorescence. Atmospheric Measurement Techniques, 2015, 8, 1337-1352.	1.2	152
9	Modeling the impact of spectral sensor configurations on the FLD retrieval accuracy of sun-induced chlorophyll fluorescence. Remote Sensing of Environment, 2011, 115, 1882-1892.	4.6	142
10	The PRISMA imaging spectroscopy mission: overview and first performance analysis. Remote Sensing of Environment, 2021, 262, 112499.	4.6	121
11	CEFLES2: the remote sensing component to quantify photosynthetic efficiency from the leaf to the region by measuring sun-induced fluorescence in the oxygen absorption bands. Biogeosciences, 2009, 6, 1181-1198.	1.3	115
12	Downscaling of solar-induced chlorophyll fluorescence from canopy level to photosystem level using a random forest model. Remote Sensing of Environment, 2019, 231, 110772.	4.6	109
13	Experimental Evaluation of Sentinel-2 Spectral Response Functions for NDVI Time-Series Continuity. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 1336-1348.	2.7	101
14	Impact of varying irradiance on vegetation indices and chlorophyll fluorescence derived from spectroscopy data. Remote Sensing of Environment, 2015, 156, 202-215.	4.6	98
15	Simulations of chlorophyll fluorescence incorporated into the <scp>C</scp>ommunity <scp>L</scp>and <scp>M</scp>odel version 4. Global Change Biology, 2015, 21, 3469-3477.	4.2	95
16	Sunâ€induced chlorophyll fluorescence from highâ€resolution imaging spectroscopy data to quantify spatioâ€temporal patterns of photosynthetic function in crop canopies. Plant, Cell and Environment, 2016, 39, 1500-1512.	2.8	92
17	Airborne based spectroscopy of red and far-red sun-induced chlorophyll fluorescence: Implications for improved estimates of gross primary productivity. Remote Sensing of Environment, 2016, 184, 654-667.	4.6	84
18	FLD-based retrieval of sun-induced chlorophyll fluorescence from medium spectral resolution airborne spectroscopy data. Remote Sensing of Environment, 2014, 147, 256-266.	4.6	78

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19	Effect of environmental conditions on sun-induced fluorescence in a mixed forest and a cropland. Remote Sensing of Environment, 2018, 219, 310-323.	4.6	77
20	Cross-Comparison of Albedo Products for Glacier Surfaces Derived from Airborne and Satellite (Sentinel-2 and Landsat 8) Optical Data. Remote Sensing, 2017, 9, 110.	1.8	74
21	Remote sensing of plant-water relations: An overview and future perspectives. Journal of Plant Physiology, 2018, 227, 3-19.	1.6	70
22	Sun-Induced Chlorophyll Fluorescence II: Review of Passive Measurement Setups, Protocols, and Their Application at the Leaf to Canopy Level. Remote Sensing, 2019, 11, 927.	1.8	61
23	Sun-Induced Chlorophyll Fluorescence III: Benchmarking Retrieval Methods and Sensor Characteristics for Proximal Sensing. Remote Sensing, 2019, 11, 962.	1.8	57
24	The High-Performance Airborne Imaging Spectrometer HyPlantâ€"From Raw Images to Top-of-Canopy Reflectance and Fluorescence Products: Introduction of an Automatized Processing Chain. Remote Sensing, 2019, 11, 2760.	1.8	53
25	High-resolution NO₂ remote sensing from the Airborne Prism EXperiment (APEX) imaging spectrometer. Atmospheric Measurement Techniques, 2012, 5, 2211-2225.	1.2	52
26	A Bayesian object-based approach for estimating vegetation biophysical and biochemical variables from APEX at-sensor radiance data. Remote Sensing of Environment, 2013, 139, 6-17.	4.6	52
27	Using reflectance to explain vegetation biochemical and structural effects on sun-induced chlorophyll fluorescence. Remote Sensing of Environment, 2019, 231, 110996.	4.6	52
28	Spatio-temporal trends and trade-offs in ecosystem services: An Earth observation based assessment for Switzerland between 2004 and 2014. Ecological Indicators, 2018, 89, 828-839.	2.6	50
29	Correction of Reflectance Anisotropy Effects of Vegetation on Airborne Spectroscopy Data and Derived Products. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 616-627.	2.7	45
30	Correcting brightness gradients in hyperspectral data from urban areas. Remote Sensing of Environment, 2006, 101, 25-37.	4.6	44
31	Combining Sun-Induced Chlorophyll Fluorescence and Photochemical Reflectance Index Improves Diurnal Modeling of Gross Primary Productivity. Remote Sensing, 2016, 8, 574.	1.8	44
32	Field and Airborne Spectroscopy Cross Validationâ€"Some Considerations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 1117-1135.	2.3	43
33	Partitioning evapotranspiration with concurrent eddy covariance measurements in a mixed forest. Agricultural and Forest Meteorology, 2020, 280, 107786.	1.9	39
34	Combining near-infrared radiance of vegetation and fluorescence spectroscopy to detect effects of abiotic changes and stresses. Remote Sensing of Environment, 2022, 270, 112856.	4.6	39
35	Imaging spectroscopy to assess the composition of ice surface materials and their impact on glacier mass balance. Remote Sensing of Environment, 2015, 168, 388-402.	4.6	33
36	Ecosystem service change caused by climatological and nonâ€climatological drivers: a Swiss case study. Ecological Applications, 2019, 29, e01901.	1.8	31

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37	Remote sensing of sun-induced chlorophyll-a fluorescence in inland and coastal waters: Current state and future prospects. Remote Sensing of Environment, 2021, 262, 112482.	4.6	30
38	Using imaging spectroscopy to predict aboveâ€ground plant biomass in alpine grasslands grazed by large ungulates. Journal of Vegetation Science, 2015, 26, 175-190.	1.1	29
39	Variability of sunâ€induced chlorophyll fluorescence according to stand ageâ€related processes in a managed loblolly pine forest. Global Change Biology, 2018, 24, 2980-2996.	4.2	29
40	Satellite data reveal differential responses of Swiss forests to unprecedented 2018 drought. Global Change Biology, 2022, 28, 2956-2978.	4.2	28
41	The 2013 FLEXâ€"US Airborne Campaign at the Parker Tract Loblolly Pine Plantation in North Carolina, USA. Remote Sensing, 2017, 9, 612.	1.8	27
42	Downscaling of far-red solar-induced chlorophyll fluorescence of different crops from canopy to leaf level using a diurnal data set acquired by the airborne imaging spectrometer HyPlant. Remote Sensing of Environment, 2021, 264, 112609.	4.6	24
43	Estimating near-infrared reflectance of vegetation from hyperspectral data. Remote Sensing of Environment, 2021, 267, 112723.	4.6	24
44	An Algorithm for In-Flight Spectral Calibration of Imaging Spectrometers. Remote Sensing, 2016, 8, 1017.	1.8	23
45	Response times of remote sensing measured sun-induced chlorophyll fluorescence, surface temperature and vegetation indices to evolving soil water limitation in a crop canopy. Remote Sensing of Environment, 2022, 273, 112957.	4.6	22
46	APEX - current status, performance and validation concept. , 2010, , .		21
47	Advancing retrievals of surface reflectance and vegetation indices over forest ecosystems by combining imaging spectroscopy, digital object models, and 3D canopy modelling. Remote Sensing of Environment, 2018, 204, 583-595.	4.6	18
48	Hyplant-Derived Sun-Induced Fluorescenceâ€"A New Opportunity to Disentangle Complex Vegetation Signals from Diverse Vegetation Types. Remote Sensing, 2019, 11, 1691.	1.8	18
49	Remote sensing of forest gas exchange: Considerations derived from a tomographic perspective. Global Change Biology, 2020, 26, 2717-2727.	4.2	17
50	Towards consistent assessments of in situ radiometric measurements for the validation of fluorescence satellite missions. Remote Sensing of Environment, 2022, 274, 112984.	4.6	13
51	Estimation of Alpine Forest Structural Variables from Imaging Spectrometer Data. Remote Sensing, 2015, 7, 16315-16338.	1.8	12
52	A First Assessment of the 2018 European Drought Impact on Ecosystem Evapotranspiration. Remote Sensing, 2021, 13, 16.	1.8	12
53	From instantaneous to continuous: Using imaging spectroscopy and in situ data to map two productivity-related ecosystem services. Ecological Indicators, 2017, 82, 409-419.	2.6	11
54	Mapping the Irradiance Field of a Single Tree: Quantifying Vegetation-Induced Adjacency Effects. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 4994-5011.	2.7	11

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55	The relationship between ecosystem services and human modification displays decoupling across global delta systems. Communications Earth & Environment, 2022, 3, .	2.6	11
56	On the seasonal relation of sun-induced chlorophyll fluorescence and transpiration in a temperate mixed forest. Agricultural and Forest Meteorology, 2021, 304-305, 108386.	1.9	10
57	Insights for the Partitioning of Ecosystem Evaporation and Transpiration in Shortâ€Statured Croplands. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	1.3	9
58	Continuous Fields From Imaging Spectrometer Data for Ecosystem Parameter Mapping and Their Potential for Animal Habitat Assessment in Alpine Regions. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2600-2610.	2.3	7
59	Sensing of Photosynthetic Activity of Crops. , 2010, , 87-99.		7
60	Mapping Alpine Aboveground Biomass From Imaging Spectrometer Data: A Comparison of Two Approaches. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 3123-3139.	2.3	6
61	Tree Density and Forest Productivity in a Heterogeneous Alpine Environment: Insights from Airborne Laser Scanning and Imaging Spectroscopy. Forests, 2017, 8, 212.	0.9	5
62	A method to detect and correct single-band missing pixels in Landsat TM and ETM+ data. Computers and Geosciences, 2008, 34, 445-455.	2.0	4
63	Root hydraulic redistribution underlies the insensitivity of soil respiration to combined heat and drought. Applied Soil Ecology, 2021, 167, 104155.	2.1	4
64	Evaluation of gross primary production (GPP) variability over several ecosystems in Switzerland using sun-induced chlorophyll fluorescence derived from APEX data. , 2012, , .		3
65	Characterization of crop vitality and resource use efficiency by means of combining imaging spectroscopy based plant traits. , 2014, , .		2
66	Towards Advanced Retrievals of Plant Transpiration Using Sun-Induced Chlorophyll Fluorescence: First Considerations. , 2018, , .		2
67	Recent Progress and Developments in Imaging Spectroscopy. Remote Sensing, 2018, 10, 1497.	1.8	2
68	Mapping ecosystem services using imaging spectroscopy data. , 2014, , .		1
69	Quantitative global mapping of terrestrial vegetation photosynthesis: The Fluorescence Explorer (FLEX) mission. , 2017, , .		1
70	Mapping the spatial distribution of NO₂ with in situ and remote sensing instruments during the Munich NO₂ imaging campaign. Atmospheric Measurement Techniques, 2022, 15, 1609-1629.	1.2	1
71	Ecosystem parameter mapping in Swiss National Park based on a continuous fields approach. , 2013, , .		0
72	Airborne based spectroscopy to measure sun-induced chlorophyll fluorescence. , 2014, , .		0

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73	Optical Closure of Remote Sensing Reflectance Using Automated Hyperspectral Profiler Data. , 2021, , .		0
74	â€œFlex 2018â€•Cruise: an opportunity to assess phytoplankton chlorophyll fluorescence retrieval at different observative scales. Proceedings E Report, 0, , 688-697.	0.0	0