

Matthew F. McCabe

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3007818/publications.pdf>

Version: 2024-02-01

220
papers

15,130
citations

23567

58
h-index

21540

114
g-index

252
all docs

252
docs citations

252
times ranked

14986
citing authors

#	ARTICLE	IF	CITATIONS
1	Estimating Land Surface Evaporation: A Review of Methods Using Remotely Sensed Surface Temperature Data. <i>Surveys in Geophysics</i> , 2008, 29, 421-469.	4.6	949
2	Trend-preserving blending of passive and active microwave soil moisture retrievals. <i>Remote Sensing of Environment</i> , 2012, 123, 280-297.	11.0	670
3	Developing an improved soil moisture dataset by blending passive and active microwave satellite-based retrievals. <i>Hydrology and Earth System Sciences</i> , 2011, 15, 425-436.	4.9	572
4	The future of evapotranspiration: Global requirements for ecosystem functioning, carbon and climate feedbacks, agricultural management, and water resources. <i>Water Resources Research</i> , 2017, 53, 2618-2626.	4.2	552
5	Recent reversal in loss of global terrestrial biomass. <i>Nature Climate Change</i> , 2015, 5, 470-474.	18.8	447
6	On the Use of Unmanned Aerial Systems for Environmental Monitoring. <i>Remote Sensing</i> , 2018, 10, 641.	4.0	433
7	The future of Earth observation in hydrology. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 3879-3914.	4.9	313
8	Evaluation of global observations-based evapotranspiration datasets and IPCC AR4 simulations. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	312
9	Benchmark products for land evapotranspiration: LandFlux-EVAL multi-data set synthesis. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 3707-3720.	4.9	310
10	Global intercomparison of 12 land surface heat flux estimates. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	309
11	Scale influences on the remote estimation of evapotranspiration using multiple satellite sensors. <i>Remote Sensing of Environment</i> , 2006, 105, 271-285.	11.0	307
12	The WACMOS-ET project – Part 2: Evaluation of global terrestrial evaporation data sets. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 823-842.	4.9	253
13	Dryland ecohydrology and climate change: critical issues and technical advances. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 2585-2603.	4.9	241
14	Multi-site evaluation of terrestrial evaporation models using FLUXNET data. <i>Agricultural and Forest Meteorology</i> , 2014, 187, 46-61.	4.8	237
15	Global long-term passive microwave satellite-based retrievals of vegetation optical depth. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	222
16	ECOSTRESS: NASA's Next Generation Mission to Measure Evapotranspiration From the International Space Station. <i>Water Resources Research</i> , 2020, 56, e2019WR026058.	4.2	220
17	Closing the terrestrial water budget from satellite remote sensing. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	186
18	A Cubesat enabled Spatio-Temporal Enhancement Method (CESTEM) utilizing Planet, Landsat and MODIS data. <i>Remote Sensing of Environment</i> , 2018, 209, 211-226.	11.0	186

#	ARTICLE	IF	CITATIONS
19	Estimation of regional terrestrial water cycle using multi-sensor remote sensing observations and data assimilation. <i>Remote Sensing of Environment</i> , 2008, 112, 1282-1294.	11.0	176
20	Modeling Evapotranspiration during SMACEX: Comparing Two Approaches for Local- and Regional-Scale Prediction. <i>Journal of Hydrometeorology</i> , 2005, 6, 910-922.	1.9	171
21	A hybrid training approach for leaf area index estimation via Cubist and random forests machine-learning. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2018, 135, 173-188.	11.1	165
22	Effects of spatial aggregation on the multi-scale estimation of evapotranspiration. <i>Remote Sensing of Environment</i> , 2013, 131, 51-62.	11.0	164
23	The WACMOS-ET project – Part 1: Tower-scale evaluation of four remote-sensing-based evapotranspiration algorithms. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 803-822.	4.9	164
24	Response of Chlorophyll, Carotenoid and SPAD-502 Measurement to Salinity and Nutrient Stress in Wheat (<i>Triticum aestivum</i> L.). <i>Agronomy</i> , 2017, 7, 61.	3.0	164
25	State of the Climate in 2017. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, Si-S310.	3.3	160
26	Surface energy fluxes with the Advanced Spaceborne Thermal Emission and Reflection radiometer (ASTER) at the Iowa 2002 SMACEX site (USA). <i>Remote Sensing of Environment</i> , 2005, 99, 55-65.	11.0	154
27	Global vegetation biomass change (1988-2008) and attribution to environmental and human drivers. <i>Global Ecology and Biogeography</i> , 2013, 22, 692-705.	5.8	149
28	Changing Climate and Overgrazing Are Decimating Mongolian Steppes. <i>PLoS ONE</i> , 2013, 8, e57599.	2.5	136
29	Use of unmanned aerial vehicles for efficient beach litter monitoring. <i>Marine Pollution Bulletin</i> , 2018, 131, 662-673.	5.0	135
30	Current Practices in UAS-based Environmental Monitoring. <i>Remote Sensing</i> , 2020, 12, 1001.	4.0	135
31	State of the Climate in 2016. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, Si-S280.	3.3	132
32	High-Resolution NDVI from Planet’s Constellation of Earth Observing Nano-Satellites: A New Data Source for Precision Agriculture. <i>Remote Sensing</i> , 2016, 8, 768.	4.0	131
33	A simplified reduced order Kalman filtering and application to altimetric data assimilation in Tropical Pacific. <i>Journal of Marine Systems</i> , 2002, 36, 101-127.	2.1	123
34	A Random Forest Machine Learning Approach for the Retrieval of Leaf Chlorophyll Content in Wheat. <i>Remote Sensing</i> , 2019, 11, 920.	4.0	123
35	The GEWEX LandFlux project: evaluation of model evaporation using tower-based and globally gridded forcing data. <i>Geoscientific Model Development</i> , 2016, 9, 283-305.	3.6	119
36	Joint leaf chlorophyll content and leaf area index retrieval from Landsat data using a regularized model inversion system (REGFLEC). <i>Remote Sensing of Environment</i> , 2015, 159, 203-221.	11.0	114

#	ARTICLE	IF	CITATIONS
37	Regional Ocean Data Assimilation. Annual Review of Marine Science, 2015, 7, 21-42.	11.6	114
38	Multi-sensor remote sensing for drought characterization: current status, opportunities and a roadmap for the future. Remote Sensing of Environment, 2021, 256, 112313.	11.0	114
39	Copula-Derived Observation Operators for Assimilating TMI and AMSR-E Retrieved Soil Moisture into Land Surface Models. Journal of Hydrometeorology, 2007, 8, 413-429.	1.9	109
40	Hydrological consistency using multi-sensor remote sensing data for water and energy cycle studies. Remote Sensing of Environment, 2008, 112, 430-444.	11.0	108
41	An Extended SEIR Model with Vaccination for Forecasting the COVID-19 Pandemic in Saudi Arabia Using an Ensemble Kalman Filter. Mathematics, 2021, 9, 636.	2.2	103
42	Evaluation of AMSR-E-Derived Soil Moisture Retrievals Using Ground-Based and PSR Airborne Data during SMEX02. Journal of Hydrometeorology, 2005, 6, 864-877.	1.9	101
43	Daily Retrieval of NDVI and LAI at 3 m Resolution via the Fusion of CubeSat, Landsat, and MODIS Data. Remote Sensing, 2018, 10, 890.	4.0	99
44	Regional climate simulation over Australia's Murray-Darling basin: A multitemporal assessment. Journal of Geophysical Research, 2010, 115, .	3.3	95
45	Spatial and temporal variability in seasonal snow density. Journal of Hydrology, 2013, 484, 63-73.	5.4	94
46	Using Multi-Spectral UAV Imagery to Extract Tree Crop Structural Properties and Assess Pruning Effects. Remote Sensing, 2018, 10, 854.	4.0	93
47	Partitioning of evapotranspiration in remote sensing-based models. Agricultural and Forest Meteorology, 2018, 260-261, 131-143.	4.8	91
48	Impact of model structure and parameterization on Penman-Monteith type evaporation models. Journal of Hydrology, 2015, 525, 521-535.	5.4	87
49	Assessing the impact of model spin-up on surface water-groundwater interactions using an integrated hydrologic model. Water Resources Research, 2014, 50, 2636-2656.	4.2	80
50	A high-resolution assessment of wind and wave energy potentials in the Red Sea. Applied Energy, 2016, 181, 244-255.	10.1	79
51	A multi-decadal assessment of the performance of gauge- and model-based rainfall products over Saudi Arabia: climatology, anomalies and trends. International Journal of Climatology, 2016, 36, 656-674.	3.5	78
52	Model parameter analysis using remotely sensed pattern information in a multi-constraint framework. Journal of Hydrology, 2011, 409, 337-349.	5.4	76
53	The Red Sea: A Natural Laboratory for Wind and Wave Modeling. Journal of Physical Oceanography, 2014, 44, 3139-3159.	1.7	71
54	Effect of model resolution on a regional climate model simulation over southeast Australia. Climate Research, 2013, 56, 131-145.	1.1	70

#	ARTICLE	IF	CITATIONS
55	Climatic features of the Red Sea from a regional assimilative model. <i>International Journal of Climatology</i> , 2017, 37, 2563-2581.	3.5	70
56	Elevated CO2 as a driver of global dryland greening. <i>Scientific Reports</i> , 2016, 6, 20716.	3.3	68
57	Gap-Filling of Landsat 7 Imagery Using the Direct Sampling Method. <i>Remote Sensing</i> , 2017, 9, 12.	4.0	68
58	The effect of warming on grassland evapotranspiration partitioning using laser-based isotope monitoring techniques. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 111, 28-38.	3.9	67
59	Global Climate. <i>Bulletin of the American Meteorological Society</i> , 2020, 101, S9-S128.	3.3	61
60	CubeSats in Hydrology: Ultrahigh-Resolution Insights Into Vegetation Dynamics and Terrestrial Evaporation. <i>Water Resources Research</i> , 2017, 53, 10017-10024.	4.2	60
61	CubeSats Enable High Spatiotemporal Retrievals of Crop-Water Use for Precision Agriculture. <i>Remote Sensing</i> , 2018, 10, 1867.	4.0	57
62	Partitioning of evapotranspiration using a stable isotope technique in an arid and high temperature agricultural production system. <i>Agricultural Water Management</i> , 2017, 179, 103-109.	5.6	55
63	Predicting Biomass and Yield in a Tomato Phenotyping Experiment Using UAV Imagery and Random Forest. <i>Frontiers in Artificial Intelligence</i> , 2020, 3, 28.	3.4	55
64	Evaluation of the TMPA-3B42 precipitation product using a high-density rain gauge network over complex terrain in northeastern Iberia. <i>Global and Planetary Change</i> , 2015, 133, 188-200.	3.5	54
65	Data assimilation within the Advanced Circulation (ADCIRC) modeling framework for the estimation of Manning's friction coefficient. <i>Ocean Modelling</i> , 2014, 76, 43-58.	2.4	53
66	Intra-Season Crop Height Variability at Commercial Farm Scales Using a Fixed-Wing UAV. <i>Remote Sensing</i> , 2018, 10, 2007.	4.0	52
67	Surface air temperature variability over the Arabian Peninsula and its links to circulation patterns. <i>International Journal of Climatology</i> , 2019, 39, 445-464.	3.5	52
68	Detailed assessment of isotope ratio infrared spectroscopy and isotope ratio mass spectrometry for the stable isotope analysis of plant and soil waters. <i>Rapid Communications in Mass Spectrometry</i> , 2011, 25, 3071-3082.	1.5	51
69	Spatiotemporal reconstruction of gaps in multivariate fields using the direct sampling approach. <i>Water Resources Research</i> , 2012, 48, .	4.2	51
70	Simulation of Flash-Flood-Producing Storm Events in Saudi Arabia Using the Weather Research and Forecasting Model*. <i>Journal of Hydrometeorology</i> , 2015, 16, 615-630.	1.9	51
71	Scaling characteristics of spatial patterns of soil moisture from distributed modelling. <i>Advances in Water Resources</i> , 2007, 30, 2145-2150.	3.8	50
72	Demonstration of a geostatistical approach to physically consistent downscaling of climate modeling simulations. <i>Water Resources Research</i> , 2013, 49, 245-259.	4.2	50

#	ARTICLE	IF	CITATIONS
73	The impact of COVID-19 lockdowns on surface urban heat island changes and air-quality improvements across 21 major cities in the Middle East. <i>Environmental Pollution</i> , 2021, 288, 117802.	7.5	50
74	Retrieval of High-Resolution Soil Moisture through Combination of Sentinel-1 and Sentinel-2 Data. <i>Remote Sensing</i> , 2020, 12, 2303.	4.0	49
75	Leaf chlorophyll constraint on model simulated gross primary productivity in agricultural systems. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2015, 43, 160-176.	2.8	48
76	A Spatio-Temporal Enhancement Method for medium resolution LAI (STEM-LAI). <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2016, 47, 15-29.	2.8	48
77	Downscaling the 2D Boussinesq convection equations using continuous data assimilation. <i>Computational Geosciences</i> , 2017, 21, 393-410.	2.4	48
78	Identification of Tropical-Extratropical Interactions and Extreme Precipitation Events in the Middle East Based On Potential Vorticity and Moisture Transport. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 861-881.	3.3	48
79	High-resolution assessment of solar energy resources over the Arabian Peninsula. <i>Applied Energy</i> , 2019, 248, 354-371.	10.1	48
80	Exploring the roles of and interactions among microbes in dry co-digestion of food waste and pig manure using high-throughput 16S rRNA gene amplicon sequencing. <i>Biotechnology for Biofuels</i> , 2019, 12, 5.	6.2	48
81	Unmanned Aerial Vehicle-Based Phenotyping Using Morphometric and Spectral Analysis Can Quantify Responses of Wild Tomato Plants to Salinity Stress. <i>Frontiers in Plant Science</i> , 2019, 10, 370.	3.6	47
82	A Calibration Procedure for Field and UAV-Based Uncooled Thermal Infrared Instruments. <i>Sensors</i> , 2020, 20, 3316.	3.8	47
83	Improved mixing height monitoring through a combination of lidar and radon measurements. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 207-218.	3.1	46
84	The Impact of Observed Vegetation Changes on Land-Atmosphere Feedbacks During Drought. <i>Journal of Hydrometeorology</i> , 2014, 15, 759-776.	1.9	45
85	Calibration of a land surface model using multiple data sets. <i>Journal of Hydrology</i> , 2005, 302, 209-222.	5.4	42
86	Uncertainty quantification and inference of Manning's friction coefficients using DART buoy data during the Tohoku tsunami. <i>Ocean Modelling</i> , 2014, 83, 82-97.	2.4	42
87	Estimation of soil salinity in a drip irrigation system by using joint inversion of multicoil electromagnetic induction measurements. <i>Water Resources Research</i> , 2015, 51, 3490-3504.	4.2	42
88	Variability of monsoon low-level jet and associated rainfall over India. <i>International Journal of Climatology</i> , 2020, 40, 1067-1089.	3.5	42
89	Large eddy simulation of atypical wildland fire spread on leeward slopes. <i>International Journal of Wildland Fire</i> , 2013, 22, 599.	2.4	41
90	ENSO influence on the interannual variability of the Red Sea convergence zone and associated rainfall. <i>International Journal of Climatology</i> , 2018, 38, 761-775.	3.5	41

#	ARTICLE	IF	CITATIONS
91	Satellite based observations for seasonal snow cover detection and characterisation in Australia. Remote Sensing of Environment, 2012, 123, 57-71.	11.0	40
92	Atmospheric Forcing of the Winter Air-Sea Heat Fluxes over the Northern Red Sea. Journal of Climate, 2013, 26, 1685-1701.	3.2	40
93	Early season prediction of within-field crop yield variability by assimilating CubeSat data into a crop model. Agricultural and Forest Meteorology, 2022, 313, 108736.	4.8	40
94	Daily temperature extremes over Egypt: Spatial patterns, temporal trends, and driving forces. Atmospheric Research, 2019, 226, 219-239.	4.1	39
95	Using Unmanned Aerial Vehicles to assess the rehabilitation performance of open cut coal mines. Journal of Cleaner Production, 2019, 209, 819-833.	9.3	39
96	Mapping the condition of macadamia tree crops using multi-spectral UAV and WorldView-3 imagery. ISPRS Journal of Photogrammetry and Remote Sensing, 2020, 165, 28-40.	11.1	39
97	The role of the Indian Summer Monsoon variability on Arabian Peninsula summer climate. Climate Dynamics, 2019, 52, 3389-3404.	3.8	37
98	Spatial and temporal patterns of land surface fluxes from remotely sensed surface temperatures within an uncertainty modelling framework. Hydrology and Earth System Sciences, 2005, 9, 467-480.	4.9	37
99	Spatiotemporal monitoring of soil water content profiles in an irrigated field using probabilistic inversion of time-lapse EMI data. Advances in Water Resources, 2017, 110, 238-248.	3.8	35
100	Initial soil moisture retrievals from AMSR-E: Multiscale comparison using in situ data and rainfall patterns over Iowa. Geophysical Research Letters, 2005, 32, .	4.0	34
101	Linear mixing in thermal infrared temperature retrieval. International Journal of Remote Sensing, 2008, 29, 5047-5061.	2.9	34
102	Predicting extreme rainfall events over Jeddah, Saudi Arabia: impact of data assimilation with conventional and satellite observations. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 327-348.	2.7	34
103	A Variational Bayesian Multiple Particle Filtering Scheme for Large-Dimensional Systems. IEEE Transactions on Signal Processing, 2016, 64, 5409-5422.	5.3	34
104	The influence of inter-annually varying albedo on regional climate and drought. Climate Dynamics, 2014, 42, 787-803.	3.8	33
105	Impacts of dust aerosol and adjacency effects on the accuracy of Landsat 8 and RapidEye surface reflectances. Remote Sensing of Environment, 2017, 194, 127-145.	11.0	33
106	Sensitivity of Landsat 8 Surface Temperature Estimates to Atmospheric Profile Data: A Study Using MODTRAN in Dryland Irrigated Systems. Remote Sensing, 2017, 9, 988.	4.0	33
107	Enhanced canopy growth precedes senescence in 2005 and 2010 Amazonian droughts. Remote Sensing of Environment, 2018, 211, 26-37.	11.0	33
108	A space and time scale-dependent nonlinear geostatistical approach for downscaling daily precipitation and temperature. Water Resources Research, 2015, 51, 6244-6261.	4.2	32

#	ARTICLE	IF	CITATIONS
109	A comparison of optical and microwave scintillometers with eddy covariance derived surface heat fluxes. <i>Agricultural and Forest Meteorology</i> , 2015, 213, 226-239.	4.8	32
110	A Bayesian consistent dual ensemble Kalman filter for state-parameter estimation in subsurface hydrology. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 3289-3307.	4.9	32
111	Adapting a regularized canopy reflectance model (REGFLEC) for the retrieval challenges of dryland agricultural systems. <i>Remote Sensing of Environment</i> , 2016, 186, 105-120.	11.0	32
112	Changes in the frequency and severity of hydrological droughts over Ethiopia from 1960 to 2013. <i>Cuadernos De Investigacion Geografica</i> , 2016, 42, 145-166.	1.1	31
113	A comparison of gap-filling approaches for Landsat-7 satellite data. <i>International Journal of Remote Sensing</i> , 2017, 38, 6653-6679.	2.9	30
114	The role of topography, soil, and remotely sensed vegetation condition towards predicting crop yield. <i>Field Crops Research</i> , 2020, 252, 107788.	5.1	30
115	Assimilation of soil moisture and canopy cover data improves maize simulation using an under-calibrated crop model. <i>Agricultural Water Management</i> , 2021, 252, 106884.	5.6	30
116	Capturing the Diurnal Cycle of Land Surface Temperature Using an Unmanned Aerial Vehicle. <i>Remote Sensing</i> , 2018, 10, 1407.	4.0	29
117	Efficient dynamical downscaling of general circulation models using continuous data assimilation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2019, 145, 3175-3194.	2.7	29
118	Automated Georectification and Mosaicking of UAV-Based Hyperspectral Imagery from Push-Broom Sensors. <i>Remote Sensing</i> , 2020, 12, 34.	4.0	29
119	Combining multi-indicators with machine-learning algorithms for maize yield early prediction at the county-level in China. <i>Agricultural and Forest Meteorology</i> , 2022, 323, 109057.	4.8	29
120	Multi-decadal classification of synoptic weather types, observed trends and links to rainfall characteristics over Saudi Arabia. <i>Frontiers in Environmental Science</i> , 2014, 2, .	3.3	28
121	Recent changes in continentality and aridity conditions over the Middle East and North Africa region, and their association with circulation patterns. <i>Climate Research</i> , 2016, 69, 25-43.	1.1	28
122	Land surface albedo and vegetation feedbacks enhanced the millennium drought in south-east Australia. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 409-422.	4.9	27
123	Radiometric Assessment of a UAV-Based Push-Broom Hyperspectral Camera. <i>Sensors</i> , 2019, 19, 4699.	3.8	27
124	Phenotyping a diversity panel of quinoa using UAV-retrieved leaf area index, SPAD-based chlorophyll and a random forest approach. <i>Precision Agriculture</i> , 2022, 23, 961-983.	6.0	27
125	Multi-sensor and multi-platform consistency and interoperability between UAV, Planet CubeSat, Sentinel-2, and Landsat reflectance data. <i>GIScience and Remote Sensing</i> , 2022, 59, 936-958.	5.9	26
126	Constraining snowmelt in a temperature-index model using simulated snow densities. <i>Journal of Hydrology</i> , 2014, 517, 652-667.	5.4	25

#	ARTICLE	IF	CITATIONS
127	Influence of cracking clays on satellite estimated and model simulated soil moisture. <i>Hydrology and Earth System Sciences</i> , 2010, 14, 979-990.	4.9	24
128	Bayesian inference of earthquake parameters from buoy data using a polynomial chaos-based surrogate. <i>Computational Geosciences</i> , 2017, 21, 683-699.	2.4	24
129	Ensemble data assimilation in the Red Sea: sensitivity to ensemble selection and atmospheric forcing. <i>Ocean Dynamics</i> , 2017, 67, 915-933.	2.2	24
130	Enhanced flood forecasting through ensemble data assimilation and joint state-parameter estimation. <i>Journal of Hydrology</i> , 2019, 577, 123924.	5.4	24
131	Evidence for intensification of meteorological droughts in Oman over the past four decades. <i>Atmospheric Research</i> , 2020, 246, 105126.	4.1	24
132	An iterative stochastic ensemble method for parameter estimation of subsurface flow models. <i>Journal of Computational Physics</i> , 2013, 242, 696-714.	3.8	23
133	Prominent mode of summer surface air temperature variability and associated circulation anomalies over the Arabian Peninsula. <i>Atmospheric Science Letters</i> , 2018, 19, e860.	1.9	22
134	An Adaptive Approach to Mitigate Background Covariance Limitations in the Ensemble Kalman Filter. <i>Monthly Weather Review</i> , 2010, 138, 2825-2845.	1.4	21
135	Path planning in uncertain flow fields using ensemble method. <i>Ocean Dynamics</i> , 2016, 66, 1231-1251.	2.2	21
136	Advances in the Remote Sensing of Terrestrial Evaporation. <i>Remote Sensing</i> , 2019, 11, 1138.	4.0	21
137	PUSHBROOM HYPERSPECTRAL IMAGING FROM AN UNMANNED AIRCRAFT SYSTEM (UAS) â€“ GEOMETRIC PROCESSING WORKFLOW AND ACCURACY ASSESSMENT. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> , 0, XLII-2/W6, 379-384.	0.2	20
138	Response of water vapour D-excess to landâ€“atmosphere interactions in a semi-arid environment. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 533-548.	4.9	19
139	Impact of Urbanization on the Simulation of Extreme Rainfall in the City of Jeddah, Saudi Arabia. <i>Journal of Applied Meteorology and Climatology</i> , 2020, 59, 953-971.	1.5	19
140	Mapping groundwater abstractions from irrigated agriculture: big data, inverse modeling, and a satelliteâ€“model fusion approach. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 5251-5277.	4.9	19
141	Technical Note: Reducing the spin-up time of integrated surface waterâ€“groundwater models. <i>Hydrology and Earth System Sciences</i> , 2014, 18, 5169-5179.	4.9	18
142	Growth performance and hematological changes of weaned beef calves diagnosed with respiratory disease using respiratory scoring and thoracic ultrasonography. <i>Journal of Animal Science</i> , 2020, 98, .	0.5	18
143	Nocturnal Surface Urban Heat Island over Greater Cairo: Spatial Morphology, Temporal Trends and Links to Land-Atmosphere Influences. <i>Remote Sensing</i> , 2020, 12, 3889.	4.0	18
144	Impacts of model initialization on an integrated surface waterâ€“groundwater model. <i>Hydrological Processes</i> , 2015, 29, 3790-3801.	2.6	17

#	ARTICLE	IF	CITATIONS
145	Comparison between a coupled 1D-2D model and a fully 2D model for supercritical flow simulation in crossroads. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2015, 53, 274-281.	1.7	17
146	Remote sensing of Greenland ice sheet using multispectral near-infrared and visible radiances. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	16
147	A Bayesian analysis of sensible heat flux estimation: Quantifying uncertainty in meteorological forcing to improve model prediction. <i>Water Resources Research</i> , 2013, 49, 2343-2358.	4.2	16
148	To what extent do long-duration high-volume dam releases influence river-aquifer interactions? A case study in New South Wales, Australia. <i>Hydrogeology Journal</i> , 2015, 23, 319-334.	2.1	16
149	Evaluating the hydrological consistency of evaporation products using satellite-based gravity and rainfall data. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 323-343.	4.9	16
150	Inferring soil salinity in a drip irrigation system from multi-configuration EMI measurements using adaptive Markov chain Monte Carlo. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 5375-5383.	4.9	16
151	Surrogate-based parameter inference in debris flow model. <i>Computational Geosciences</i> , 2018, 22, 1447-1463.	2.4	16
152	Extreme precipitation events are becoming less frequent but more intense over Jeddah, Saudi Arabia. Are shifting weather regimes the cause?. <i>Atmospheric Science Letters</i> , 2020, 21, e981.	1.9	16
153	Combining Nadir, Oblique, and Facade Imagery Enhances Reconstruction of Rock Formations Using Unmanned Aerial Vehicles. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2021, 59, 9987-9999.	6.3	16
154	CubeSats deliver new insights into agricultural water use at daily and 3m resolutions. <i>Scientific Reports</i> , 2021, 11, 12131.	3.3	16
155	Global sensitivity analysis of crop yield and transpiration from the FAO-AquaCrop model for dryland environments. <i>Field Crops Research</i> , 2021, 269, 108182.	5.1	16
156	Temporal Monitoring of the Soil Freeze-Thaw Cycles over a Snow-Covered Surface by Using Air-Launched Ground-Penetrating Radar. <i>Remote Sensing</i> , 2015, 7, 12041-12056.	4.0	15
157	Hazard assessment of oil spills along the main shipping lane in the Red Sea. <i>Scientific Reports</i> , 2021, 11, 17078.	3.3	15
158	Stable water isotope and surface heat flux simulation using ISOLSM: Evaluation against in-situ measurements. <i>Journal of Hydrology</i> , 2015, 523, 67-78.	5.4	14
159	Detecting Plant Stress Using Thermal and Optical Imagery From an Unoccupied Aerial Vehicle. <i>Frontiers in Plant Science</i> , 2021, 12, 734944.	3.6	14
160	Future projections of synoptic weather types over the Arabian Peninsula during the twenty-first century using an ensemble of CMIP5 models. <i>Theoretical and Applied Climatology</i> , 2017, 130, 173-189.	2.8	13
161	Spatiotemporal monitoring of soil moisture from EMI data using DCT-based Bayesian inference and neural network. <i>Journal of Applied Geophysics</i> , 2019, 169, 226-238.	2.1	13
162	Sentinel-1 Backscatter Assimilation Using Support Vector Regression or the Water Cloud Model at European Soil Moisture Sites. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2022, 19, 1-5.	3.1	13

#	ARTICLE	IF	CITATIONS
163	Machine Learning Strategies for the Retrieval of Leaf-Chlorophyll Dynamics: Model Choice, Sequential Versus Retraining Learning, and Hyperspectral Predictors. <i>Frontiers in Plant Science</i> , 2022, 13, 722442.	3.6	13
164	Spatial assessment of the performance of multiple high-resolution satellite-based precipitation data sets over the Middle East. <i>International Journal of Climatology</i> , 2019, 39, 2522-2543.	3.5	12
165	Nature-Inspired Superhydrophobic Sand Mulches Increase Agricultural Productivity and Water-Use Efficiency in Arid Regions. <i>ACS Agricultural Science and Technology</i> , 2022, 2, 276-288.	2.3	12
166	A machine learning approach for identifying and delineating agricultural fields and their multi-temporal dynamics using three decades of Landsat data. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2022, 186, 83-101.	11.1	12
167	A new approach for the determination of the drag coefficient from the upper ocean response to a tropical cyclone: a feasibility study. <i>Journal of Oceanography</i> , 2012, 68, 227-241.	1.7	11
168	High-resolution sensing for precision agriculture: from Earth-observing satellites to unmanned aerial vehicles. <i>Proceedings of SPIE</i> , 2016, , .	0.8	11
169	Center pivot field delineation and mapping: A satellite-driven object-based image analysis approach for national scale accounting. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2021, 175, 1-19.	11.1	11
170	Thermal Sensor Calibration for Unmanned Aerial Systems Using an External Heated Shutter. <i>Drones</i> , 2021, 5, 119.	4.9	11
171	CubeSat constellations provide enhanced crop phenology and digital agricultural insights using daily leaf area index retrievals. <i>Scientific Reports</i> , 2022, 12, 5244.	3.3	11
172	Examining the relationship between intermediate-scale soil moisture and terrestrial evaporation within a semi-arid grassland. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 3987-4004.	4.9	10
173	A study of reduced-order 4DVAR with a finite element shallow water model. <i>International Journal for Numerical Methods in Fluids</i> , 2016, 80, 631-647.	1.6	10
174	PREDICTING BIOMASS AND YIELD AT HARVEST OF SALT-STRESSED TOMATO PLANTS USING UAV IMAGERY. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> , 0, XLII-2/W13, 407-411.	0.2	10
175	Dye tracing and concentration mapping in coastal waters using unmanned aerial vehicles. <i>Scientific Reports</i> , 2022, 12, 1141.	3.3	10
176	Multi-variable assimilation into a modified AquaCrop model for improved maize simulation without management or crop phenology information. <i>Agricultural Water Management</i> , 2022, 266, 107576.	5.6	10
177	An Efficient State-Parameter Filtering Scheme Combining Ensemble Kalman and Particle Filters. <i>Monthly Weather Review</i> , 2018, 146, 871-887.	1.4	9
178	Downscaling Multispectral Satellite Images Without Colocated High-Resolution Data: A Stochastic Approach Based on Training Images. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2021, 59, 3209-3225.	6.3	9
179	Monitoring Irrigation Events and Crop Dynamics Using Sentinel-1 and Sentinel-2 Time Series. <i>Remote Sensing</i> , 2022, 14, 1205.	4.0	9
180	Daily temperature changes and variability in ENSEMBLES regional models predictions: Evaluation and intercomparison for the Ebro Valley (NE Iberia). <i>Atmospheric Research</i> , 2015, 155, 141-157.	4.1	8

#	ARTICLE	IF	CITATIONS
181	A geo-informatics approach for estimating water resources management components and their interrelationships. <i>Agricultural Water Management</i> , 2016, 178, 89-105.	5.6	8
182	Detecting ice-sheet melt area over western Greenland using MODIS and AMSR-E data for the summer periods of 2002–2006. <i>Remote Sensing Letters</i> , 2011, 2, 117-126.	1.4	7
183	Analysis of a severe weather event over Mecca, Kingdom of Saudi Arabia, using observations and high-resolution modelling. <i>Meteorological Applications</i> , 2017, 24, 612-627.	2.1	7
184	Quantifying uncertainties in fault slip distribution during the T�hoku tsunami using polynomial chaos. <i>Ocean Dynamics</i> , 2017, 67, 1535-1551.	2.2	7
185	Overcoming the Challenges of Thermal Infrared Orthomosaics Using a Swath-Based Approach to Correct for Dynamic Temperature and Wind Effects. <i>Remote Sensing</i> , 2021, 13, 3255.	4.0	7
186	Mathematical Modeling of Immune Responses against SARS-CoV-2 Using an Ensemble Kalman Filter. <i>Mathematics</i> , 2021, 9, 2427.	2.2	7
187	Monitoring water storage decline over the Middle East. <i>Journal of Hydrology</i> , 2021, 603, 127166.	5.4	7
188	Efficient ensemble forecasting of marine ecology with clustered 1D models and statistical lateral exchange: application to the Red Sea. <i>Ocean Dynamics</i> , 2017, 67, 935-947.	2.2	6
189	A Bayesian Structural Time Series Approach for Predicting Red Sea Temperatures. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2020, 13, 1996-2009.	4.9	6
190	Extreme water levels along the central Red Sea coast of Saudi Arabia: processes and frequency analysis. <i>Natural Hazards</i> , 2021, 105, 1797-1814.	3.4	6
191	Digital insights: bridging the phenotype-to-genotype divide. <i>Journal of Experimental Botany</i> , 2021, 72, 2807-2810.	4.8	6
192	Long-term changes in the Arabian Peninsula rainfall and their relationship with the ENSO signals in the tropical Indo-Pacific. <i>Climate Dynamics</i> , 2022, 59, 1715-1731.	3.8	6
193	Global-Scale Estimation of Land Surface Heat Fluxes from Space. , 2013, , 249-282.		5
194	Enhanced Simulation of the Indian Summer Monsoon Rainfall Using Regional Climate Modeling and Continuous Data Assimilation. <i>Frontiers in Climate</i> , 2022, 4, .	2.8	5
195	Reconstructing Cloud Contaminated Pixels Using Spatiotemporal Covariance Functions and Multitemporal Hyperspectral Imagery. <i>Remote Sensing</i> , 2019, 11, 1145.	4.0	4
196	Representation of Arabian Peninsula summer climate in a regional atmospheric model using spectral nudging. <i>Theoretical and Applied Climatology</i> , 2021, 145, 13-30.	2.8	4
197	Monitoring coastal water flow dynamics using sub-daily high-resolution SkySat satellite and UAV-based imagery. <i>Water Research</i> , 2022, 219, 118531.	11.3	4
198	Roughness effects on thermal-infrared emissivities estimated from remotely sensed images. , 2007, , .		3

#	ARTICLE	IF	CITATIONS
199	Time series from hyperion to track productivity in pivot agriculture in saudi arabia. , 2017, , .		3
200	Risk-Averse Stochastic Programming vs. Adaptive Robust Optimization: A Virtual Power Plant Application. INFORMS Journal on Computing, 2022, 34, 1795-1818.	1.7	3
201	Downscaling of coarse resolution LAI products to achieve both high spatial and temporal resolution for regions of interest. , 2015, , .		2
202	Detection of chlorophyll and leaf area index dynamics from sub-weekly hyperspectral imagery. , 2016, , .		2
203	Application of Electromagnetic Induction to Monitor Changes in Soil Electrical Conductivity Profiles in Arid Agriculture. , 2015, , .		2
204	Model and measurements of linear mixing in thermal IR ground leaving radiance spectra. , 2007, , .		1
205	Evaluating a regional climate model's ability to simulate the climate of the South-east coast of Australia. IOP Conference Series: Earth and Environmental Science, 2010, 11, 012004.	0.3	1
206	Global-Scale Estimation of Land Surface Heat Fluxes from Space. , 2013, , 447-462.		1
207	Application of a regularized model inversion system (REGFLEC) to multi-temporal RapidEye imagery for retrieving vegetation characteristics. Proceedings of SPIE, 2015, , .	0.8	1
208	Removal of clouds, dust and shadow pixels from hyperspectral imagery using a non-separable and stationary spatio-temporal covariance model. Proceedings of SPIE, 2016, , .	0.8	1
209	Revisiting the Spatial Scale Effects on Remotely Sensed Evaporation. , 2021, , .		1
210	Retrospective sub-seasonal forecasts of extreme precipitation events in the Arabian Peninsula using convective-permitting modeling. Climate Dynamics, 0, , .	3.8	1
211	Exploring the use of synthetic aperture radar data for irrigation management in super high-density olive orchards. International Journal of Applied Earth Observation and Geoinformation, 2022, 112, 102878.	1.9	1
212	Forward modeling of linear mixing in thermal IR ground leaving radiance spectra. , 2006, , .		0
213	Multisensor Global Retrievals of Evapotranspiration for Climate Studies Using the Surface Energy Budget System. Remote Sensing and Digital Image Processing, 2010, , 747-778.	0.7	0
214	Towards a satellite based system for monitoring agricultural water use: A case study for Saudi Arabia. , 2015, , .		0
215	Single-site Lennard-Jones models via polynomial chaos surrogates of Monte Carlo molecular simulation. Journal of Chemical Physics, 2016, 144, 214301.	3.0	0
216	Reproducibility of crop surface maps extracted from Unmanned Aerial Vehicle (UAV) derived digital surface maps. Proceedings of SPIE, 2016, , .	0.8	0

#	ARTICLE	IF	CITATIONS
217	Continuous data assimilation for downscaling large-footprint soil moisture retrievals. Proceedings of SPIE, 2016, , .	0.8	0
218	A variational approach for parameter estimation based on balanced proper orthogonal decomposition. Computer Methods in Applied Mechanics and Engineering, 2019, 344, 694-710.	6.6	0
219	Semi-Universal Geo-Crack Detection By Machine-Learning. , 2021, , .		0
220	INTRA-FIELD CROP YIELD VARIABILITY BY ASSIMILATING CUBESAT LAI IN THE APSIM CROP MODEL. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLIII-B3-2022, 1045-1052.	0.2	0