Christopher M U Neale

List of Publications by Year
in descending order

111	5,274	94433 37	91884 69
papers	citations	h-index	g-index

112	112	112	4987
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Twenty-three unsolved problems in hydrology (UPH) â€“ a community perspective. Hydrological Sciences Journal, 2019, 64, 1141-1158.	2.6	474
2	A vegetation index based technique for spatial sharpening of thermal imagery. Remote Sensing of Environment, 2007, 107, 545-558.	11.0	367
3	Utility of Remote Sensingâ€“Based Two-Source Energy Balance Model under Low- and High-Vegetation Cover Conditions. Journal of Hydrometeorology, 2005, 6, 878-891.	1.9	253
4	Upscaling ground observations of vegetation water content, canopy height, and leaf area index during SMEX02 using aircraft and Landsat imagery. Remote Sensing of Environment, 2004, 92, 447-464.	11.0	203
5	A comparison of operational remote sensing-based models for estimating crop evapotranspiration. Agricultural and Forest Meteorology, 2009, 149, 1843-1853.	4.8	191
6	Vegetation indexâ€based crop coefficients to estimate evapotranspiration by remote sensing in agricultural and natural ecosystems. Hydrological Processes, 2011, 25, 4050-4062.	2.6	186
7	Land surface temperature derived from the SSM/I passive microwave brightness temperatures. IEEE Transactions on Geoscience and Remote Sensing, 1990, 28, 839-845.	6.3	164
8	Development of Reflectance-Based Crop Coefficients for Corn. Transactions of the American Society of Agricultural Engineers, 1990, 32, 1891.	0.9	155
9	Crop Coefficients Derived from Reflected Canopy Radiation: A Concept. Transactions of the American Society of Agricultural Engineers, 1987, 30, 0703-0709.	0.9	148
10	AquaCrop-OS: An open source version of FAO's crop water productivity model. Agricultural Water Management, 2017, 181, 18-22.	5.6	142
11	Assessing satellite-based basal crop coefficients for irrigated grapes (Vitis vinifera L.). Agricultural Water Management, 2010, 98, 45-54.	5.6	138
12	Fetch requirements for bowen ratio measurements of latent and sensible heat fluxes. Agricultural and Forest Meteorology, 1989, 44, 261-273.	4.8	123
13	Daily evapotranspiration estimates from extrapolating instantaneous airborne remote sensing ET values. Irrigation Science, 2008, 27, 67-81.	2.8	111
14	Land-surface-type classification using microwave brightness temperatures from the Special Sensor Microwave/Imager. IEEE Transactions on Geoscience and Remote Sensing, 1990, 28, 829-838.	6.3	96
15	COMPARISON OF ELEVEN VEGETATION INDICES FOR ESTIMATING PLANT HEIGHT OF ALFALFA AND GRASS. Applied Engineering in Agriculture, 2004, 20, 385-393.	0.7	88
16	Comparing Aircraft-Based Remotely Sensed Energy Balance Fluxes with Eddy Covariance Tower Data Using Heat Flux Source Area Functions. Journal of Hydrometeorology, 2005, 6, 923-940.	1.9	82
17	Trends in indices for extremes in daily temperature and precipitation over Utah, USA. International Journal of Climatology, 2011, 31, 1813-1822.	3.5	82
18	On the discrepancy between eddy covariance and lysimetry-based surface flux measurements under strongly advective conditions. Advances in Water Resources, 2012, 50, 62-78.	3.8	81

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19	Tower and Aircraft Eddy Covariance Measurements of Water Vapor, Energy, and Carbon Dioxide Fluxes during SMACEX. Journal of Hydrometeorology, 2005, 6, 954-960.	1.9	78
20	Mapping evapotranspiration with high-resolution aircraft imagery over vineyards using one- and two-source modeling schemes. Hydrology and Earth System Sciences, 2016, 20, 1523-1545.	4.9	78
21	Combining multifrequency microwave and optical data for crop management. Remote Sensing of Environment, 1997, 61, 96-109.	11.0	75
22	Evaluating the two-source energy balance model using local thermal and surface flux observations in a strongly advective irrigated agricultural area. Advances in Water Resources, 2012, 50, 120-133.	3.8	66
23	Patterns of energy exchange for tropical ecosystems across a climate gradient in Mato Grosso, Brazil. Agricultural and Forest Meteorology, 2015, 202, 112-124.	4.8	65
24	Reflectance-based crop coefficients REDUX: For operational evapotranspiration estimates in the age of high producing hybrid varieties. Agricultural Water Management, 2017, 187, 140-153.	5.6	65
25	Development and validation of canopy reflectance-based crop coefficient for potato. Agricultural Water Management, 2007, 88, 235-246.	5.6	64
26	Soil water content estimation using a remote sensing based hybrid evapotranspiration modeling approach. Advances in Water Resources, 2012, 50, 152-161.	3.8	64
27	Water, Energy, and Carbon Footprints of Bioethanol from the U.S. and Brazil. Environmental Science & Technology, 2018, 52, 14508-14518.	10.0	63
28	Situational Waste in Landscape Watering: Residential and Business Water Use in an Urban Utah Community¹. Journal of the American Water Resources Association, 2008, 44, 902-920.	2.4	62
29	An airborne multispectral video/radiometer remote sensing system: Development and calibration. Remote Sensing of Environment, 1994, 49, 187-194.	11.0	61
30	Detailed mapping of riparian vegetation in the middle Rio Grande River using high resolution multi-spectral airborne remote sensing. Journal of Arid Environments, 2008, 72, 1734-1744.	2.4	61
31	Evaluation of variable rate irrigation using a remote-sensing-based model. Agricultural Water Management, 2018, 203, 63-74.	5.6	56
32	Estimating Evapotranspiration of an Apple Orchard Using a Remote Sensing-Based Soil Water Balance. Remote Sensing, 2016, 8, 253.	4.0	53
33	Combining a water balance model with evapotranspiration measurements to estimate total available soil water in irrigated and rainfed vineyards. Agricultural Water Management, 2016, 165, 141-152.	5.6	51
34	spectral Inputs Improve Corn Crop Coefficients and Irrigation Scheduling. Transactions of the American Society of Agricultural Engineers, 1990, 32, 1901.	0.9	50
35	Irrigation water management using high resolution airborne remote sensing. Irrigation and Drainage Systems, 2005, 19, 321-336.	0.5	44
36	Water productivity and crop yield: A simplified remote sensing driven operational approach. Agricultural and Forest Meteorology, 2018, 249, 501-511.	4.8	43

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37	Distribution and Drivers of a Widespread, Invasive Wetland Grass, Phragmites australis, in Wetlands of the Great Salt Lake, Utah, USA. Wetlands, 2017, 37, 45-57.	1.5	41
38	Water productivity in meat and milk production in the US from 1960 to 2016. Environment International, 2019, 132, 105084.	10.0	41
39	Identifying Sites for Riparian Wetland Restoration: Application of a Model to the Upper Arkansas River Basin. Restoration Ecology, 1997, 5, 85-102.	2.9	39
40	Soil water content monitoring for irrigation management: A geostatistical analysis. Agricultural Water Management, 2017, 188, 36-49.	5.6	39
41	Fusion of remotely sensed data for soil moisture estimation using relevance vector and support vector machines. International Journal of Remote Sensing, 2012, 33, 6516-6552.	2.9	37
42	Estimating hourly crop ET using a two-source energy balance model and multispectral airborne imagery. Irrigation Science, 2009, 28, 79-91.	2.8	36
43	Investigating the influence of roughness length for heat transport (zoh) on the performance of SEBAL in semi-arid irrigated and dryland agricultural systems. Journal of Hydrology, 2014, 509, 231-244.	5.4	36
44	Lysimetric evaluation of SEBAL using high resolution airborne imagery from BEAREX08. Advances in Water Resources, 2013, 59, 157-168.	3.8	33
45	Integrating remotely acquired and field data to assess effects of setback levees on riparian and aquatic habitats in glacialâ€melt water rivers. River Research and Applications, 2008, 24, 355-372.	1.7	29
46	Forecasting corn yield at the farm level in Brazil based on the FAO-66 approach and soil-adjusted vegetation index (SAVI). Agricultural Water Management, 2019, 225, 105779.	5.6	29
47	Site-specific irrigation management in a sub-humid climate using a spatial evapotranspiration model with satellite and airborne imagery. Agricultural Water Management, 2020, 230, 105950.	5.6	27
48	Spatial source-area analysis of three-dimensional moisture fields from lidar, eddy covariance, and a footprint model. Agricultural and Forest Meteorology, 2003, 114, 213-234.	4.8	26
49	Water balance of irrigated areas: a remote sensing approach. Hydrological Processes, 2011, 25, 4132-4141.	2.6	26
50	Classification and Mapping of Riparian Systems Using Airborne Multispectral Videography. Restoration Ecology, 1997, 5, 103-112.	2.9	25
51	Hydrothermal monitoring in Yellowstone National Park using airborne thermal infrared remote sensing. Remote Sensing of Environment, 2016, 184, 628-644.	11.0	25
52	Remote Sensing and GIS Techniques for Assessing Irrigation Performance: Case Study in Southern California. Journal of Irrigation and Drainage Engineering - ASCE, 2018, 144, .	1.0	24
53	Evaluation of a Hybrid Reflectance-Based Crop Coefficient and Energy Balance Evapotranspiration Model for Irrigation Management. Transactions of the ASABE, 2018, 61, 533-548.	1.1	24
54	Water productivity benchmarks: The case of maize and soybean in Nebraska. Agricultural Water Management, 2020, 234, 106122.	5.6	24

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55	Comparison of the NLDAS Weather Forcing Model to Agrometeorological Measurements in the western United States. Journal of Hydrology, 2014, 510, 385-392.	5.4	23
56	Spatio-temporal patterns of energy exchange and evapotranspiration during an intense drought for drylands in Brazil. International Journal of Applied Earth Observation and Geoinformation, 2020, 85, 101982.	2.8	21
57	Characteristic length scale of input data in distributed models: implications for modeling grid size. Journal of Hydrology, 2000, 227, 128-139.	5.4	20
58	NON-WATER-STRESSED BASELINES FOR CALCULATING CROP WATER STRESS INDEX (CWSI) FOR ALFALFA AND TALL FESCUE GRASS. Transactions of the American Society of Agricultural Engineers, 2005, 48, 653-661.	0.9	20
59	ESTIMATING SOIL HEAT FLUX FOR ALFALFA AND CLIPPED TALL FESCUE GRASS. Applied Engineering in Agriculture, 2005, 21, 401-409.	0.7	20
60	Spatial and temporal variation in evapotranspiration using Raman lidar. Advances in Water Resources, 2006, 29, 369-381.	3.8	19
61	Flexible delivery schedules to improve farm irrigation and reduce pressure on groundwater: a case study in southern Italy. Irrigation Science, 2010, 28, 257-270.	2.8	18
62	ET Mapping with High-Resolution Airborne Remote Sensing Data in an Advective Semiarid Environment. Journal of Irrigation and Drainage Engineering - ASCE, 2012, 138, 416-423.	1.0	18
63	Patch scale turbulence over dryland and irrigated surfaces in a semi-arid landscape under advective conditions during BEAREX08. Advances in Water Resources, 2012, 50, 106-119.	3.8	18
64	Irrigation evaluation based on performance analysis and water accounting at the Bear River Irrigation Project (U.S.A.). Agricultural Water Management, 2011, 98, 1349-1363.	5.6	17
65	Tools for evaluating and monitoring effectiveness of urban landscape water conservation interventions and programs. Landscape and Urban Planning, 2015, 139, 82-93.	7.5	17
66	Vulnerability of Riparian Vegetation to Catastrophic Flooding: Implications for Riparian Restoration. Restoration Ecology, 1997, 5, 75-84.	2.9	16
67	Analyzing the effect of shadow on the relationship between ground cover and vegetation indices by using spectral mixture and radiative transfer models. Journal of Applied Remote Sensing, 2014, 8, 083562.	1.3	16
68	Evaluation of the Weak Constraint Data Assimilation Approach for Estimating Turbulent Heat Fluxes at Six Sites. Remote Sensing, 2018, 10, 1994.	4.0	16
69	Spectral Characteristics of Domestic and Wild Mammals. GIScience and Remote Sensing, 2012, 49, 597-608.	5.9	15
70	Trends of extreme air temperature and precipitation and their impact on corn and soybean yields in Nebraska, USA. Theoretical and Applied Climatology, 2022, 147, 1379-1399.	2.8	15
71	SNOW WETNESS ESTIMATES OF VEGETATED TERRAIN FROM SATELLITE PASSIVE MICROWAVE DATA. Hydrological Processes, 1996, 10, 1619-1628.	2.6	14
72	Quantifying Urban Landscape Water Conservation Potential Using High Resolution Remote Sensing and GIS. Photogrammetric Engineering and Remote Sensing, 2011, 77, 1113-1122.	0.6	13

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73	Irrigation Advisory Service and Performance Indicators in Baixo AcaraÃº Irrigation District, Brazil. Irrigation and Drainage, 2016, 65, 61-72.	1.7	13
74	High-resolution mapping of river-hydrothermal water mixing: Yellowstone National Park. International Journal of Remote Sensing, 2011, 32, 2765-2777.	2.9	12
75	A Decade of Unmanned Aerial Systems in Irrigated Agriculture in the Western U.S.. Applied Engineering in Agriculture, 2020, 36, 423-436.	0.7	12
76	Monitoring land-surface snow conditions from SSM/I data using an artificial neural network classifier. IEEE Transactions on Geoscience and Remote Sensing, 1997, 35, 801-809.	6.3	11
77	Temporal and spatial variations of irrigation water use for commercial corn fields in Central Nebraska. Agricultural Water Management, 2020, 228, 105924.	5.6	11
78	Improving Accuracy of Unmanned Aerial System Thermal Infrared Remote Sensing for Use in Energy Balance Models in Agriculture Applications. Remote Sensing, 2021, 13, 1635.	4.0	11
79	Variable Rate Irrigation of Maize and Soybean in West-Central Nebraska Under Full and Deficit Irrigation. Frontiers in Big Data, 2019, 2, 34.	2.9	10
80	Mapping Regional Turbulent Heat Fluxes via Assimilation of MODIS Land Surface Temperature Data into an Ensemble Kalman Smoother Framework. Earth and Space Science, 2019, 6, 2423-2442.	2.6	10
81	Scintillometer-Based Estimates of Sensible Heat Flux Using Lidar-Derived Surface Roughness. Journal of Hydrometeorology, 2012, 13, 1317-1331.	1.9	9
82	Influence of behavioral state, sex, and season on resource selection by jaguars (<i>Panthera) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 T	2.2	9
83	Effects of Surface Heterogeneity Due to Drip Irrigation on Scintillometer Estimates of Sensible, Latent Heat Fluxes and Evapotranspiration over Vineyards. Water (Switzerland), 2020, 12, 81.	2.7	9
84	Simulation of peak-demand hydrographs in pressurized irrigation delivery systems using a deterministicâ€“stochastic combined model. Part II: model applications. Irrigation Science, 2013, 31, 193-208.	2.8	8
85	Use of Remote Sensing to Assess Changes in Wetland Plant Communities Over An 18-Year Period: A Case Study from the Bear River Migratory Bird Refuge, Great Salt Lake, Utah. Western North American Naturalist, 2014, 74, 33-46.	0.4	8
86	Cotton canopy reflectance under variable solar zenith angles: Implications of use in evapotranspiration models. Hydrological Processes, 2021, 35, e14162.	2.6	8
87	Mapping saltcedar (Tamarix ramosissima) and other riparian and agricultural vegetation in the Lower Colorado River region using multi-spectral Landsat TM imagery. Geocarto International, 2010, 25, 649-662.	3.5	7
88	Temporal and Seasonal Variations of the Hot Spring Basin Hydrothermal System, Yellowstone National Park, USA. Remote Sensing, 2013, 5, 6587-6610.	4.0	7
89	Evaluation of evapotranspiration variations according to soil type using multivariate statistical analysis. Geoderma, 2019, 355, 113906.	5.1	7
90	Estimating evapotranspiration of riparian vegetation using high resolution multispectral, thermal infrared and lidar data. Proceedings of SPIE, 2011, , .	0.8	5

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91	Simulation of peak-demand hydrographs in pressurized irrigation delivery systems using a deterministicâ€“stochastic combined model. Part I: model development. Irrigation Science, 2013, 31, 209-224.	2.8	5
92	Modeling delivery performance in pressurized irrigation systems from simulated peak-demand flow configurations. Irrigation Science, 2014, 32, 295-317.	2.8	5
93	Evaluation of evapotranspiration variations as a function of relief and terrain exposure through multivariate statistical analysis. Ecohydrology and Hydrobiology, 2019, 19, 307-315.	2.3	5
94	Inter-relationships between water depletion and temperature differential in row crop canopies in a sub-humid climate. Agricultural Water Management, 2021, 256, 107061.	5.6	5
95	Calibration of a common shortwave multispectral camera system for quantitative agricultural applications. Precision Agriculture, 2020, 21, 922-935.	6.0	4
96	Sources of Error in Hydraulic Weighing Lysimeter Measurements. Transactions of the American Society of Agricultural Engineers, 1989, 32, 0081-0096.	0.9	3
97	Identifying Sites for Riparian Wetland Restoration: Application of a Model to the Upper Arkansas River Basin. Restoration Ecology, 1997, 5, 85-102.	2.9	3
98	Classification and Mapping of Riparian Systems Using Airborne Multispectral Videography. Restoration Ecology, 2008, 5, 103-112.	2.9	3
99	DIFFERENT SOYBEAN PLANT POPULATIONS UNDER CENTRAL PIVOT IRRIGATION. Engenharia Agricola, 2017, 37, 441-452.	0.7	3
100	Temporal evaluation of evapotranspiration for sugar cane, planted forest and native forest using landsat 8 images and a two-source energy balance. Computers and Electronics in Agriculture, 2018, 151, 70-76.	7.7	3
101	A methodology for conducting diagnostic analyses and operational simulation in large-scale pressurized irrigation systems. , 2006, , .		2
102	Vulnerability of Riparian Vegetation to Catastrophic Flooding: Implications for Riparian Restoration. Restoration Ecology, 1997, 5, 75-84.	2.9	1
103	Recharge assessment in the context of expanding agricultural activity: Urucuia Aquifer System, western State of Bahia, Brazil. Journal of South American Earth Sciences, 2021, 112, 103601.	1.4	1
104	Evaluating the adaptability of an irrigation district to seasonal water availability using a decade of remotely sensed evapotranspiration estimates. Agricultural Water Management, 2022, 261, 107383.	5.6	1
105	<title>Computation-efficient algorithms for image registration</title>. , 1994, , .		0
106	Airborne remote sensing applications in hydrology and water resources. Proceedings of SPIE, 2008, , .	0.8	0
107	Thermal remote sensing of snow cover to identify the extent of hydrothermal areas in Yellowstone National Park. Proceedings of SPIE, 2012, , .	0.8	0
108	Application of MODIS images for modeling the energy balance components in the semi-arid conditions of Brazil. Proceedings of SPIE, 2013, , .	0.8	0

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109	Retrieving water productivity parameters by using Landsat images in the Nilo Coelho irrigation scheme, Brazil. , 2013, , .		0
110	Stable nocturnal spectral characteristics over a vineyard (Conference Presentation). , 2016, , .		0
111	Unmanned Aerial System-Based Data Ferrying over a Sensor Node Station Network in Maize. Sensors, 2022, 22, 1863.	3.8	0