Alemu Gonsamo

List of Publications by Year in descending order

86 papers	4,175 citations	76196 40 h-index	118652 62 g-index
93 all docs	93 docs citations	93 times ranked	4589 citing authors

#	Article	IF	Citations
1	Satellite chlorophyll fluorescence measurements reveal largeâ€scale decoupling of photosynthesis and greenness dynamics in boreal evergreen forests. Global Change Biology, 2016, 22, 2979-2996.	4.2	225
2	Land surface phenology derived from normalized difference vegetation index (NDVI) at global FLUXNET sites. Agricultural and Forest Meteorology, 2017, 233, 171-182.	1.9	154
3	Contrasting responses of autumn-leaf senescence to daytime and night-time warming. Nature Climate Change, 2018, 8, 1092-1096.	8.1	145
4	Interannual variability of net ecosystem productivity in forests is explained by carbon flux phenology in autumn. Global Ecology and Biogeography, 2013, 22, 994-1006.	2.7	144
5	Satellite detection of cumulative and lagged effects of drought on autumn leaf senescence over the Northern Hemisphere. Global Change Biology, 2019, 25, 2174-2188.	4.2	126
6	A new satellite-based monthly precipitation downscaling algorithm with non-stationary relationship between precipitation and land surface characteristics. Remote Sensing of Environment, 2015, 162, 119-140.	4.6	125
7	Land surface phenology of China's temperate ecosystems over 1999â€“2013: Spatialâ€“temporal patterns, interaction effects, covariation with climate and implications for productivity. Agricultural and Forest Meteorology, 2016, 216, 177-187.	1.9	124
8	The global distribution of leaf chlorophyll content. Remote Sensing of Environment, 2020, 236, 111479.	4.6	122
9	Modeling growing season phenology in North American forests using seasonal mean vegetation indices from MODIS. Remote Sensing of Environment, 2014, 147, 79-88.	4.6	118
10	Land surface phenology from optical satellite measurement and CO₂ eddy covariance technique. Journal of Geophysical Research, 2012, 117, .	3.3	106
11	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
12	Peak season plant activity shift towards spring is reflected by increasing carbon uptake by extratropical ecosystems. Global Change Biology, 2018, 24, 2117-2128.	4.2	97
13	Snow cover phenology affects alpine vegetation growth dynamics on the Tibetan Plateau: Satellite observed evidence, impacts of different biomes, and climate drivers. Agricultural and Forest Meteorology, 2018, 256-257, 61-74.	1.9	92
14	Global vegetation productivity response to climatic oscillations during the satellite era. Global Change Biology, 2016, 22, 3414-3426.	4.2	90
15	Improved modeling of land surface phenology using MODIS land surface reflectance and temperature at evergreen needleleaf forests of central North America. Remote Sensing of Environment, 2016, 176, 152-162.	4.6	85
16	The computation of foliage clumping index using hemispherical photography. Agricultural and Forest Meteorology, 2009, 149, 1781-1787.	1.9	80
17	The match and mismatch between photosynthesis and land surface phenology of deciduous forests. Agricultural and Forest Meteorology, 2015, 214-215, 25-38.	1.9	80
18	Deriving land surface phenology indicators from CO2 eddy covariance measurements. Ecological Indicators, 2013, 29, 203-207.	2.6	78

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19	Intercomparison of fraction of absorbed photosynthetically active radiation products derived from satellite data over Europe. Remote Sensing of Environment, 2014, 142, 141-154.	4.6	71
20	Methodology comparison for slope correction in canopy leaf area index estimation using hemispherical photography. Forest Ecology and Management, 2008, 256, 749-759.	1.4	65
21	Interannual and spatial impacts of phenological transitions, growing season length, and spring and autumn temperatures on carbon sequestration: A North America flux data synthesis. Global and Planetary Change, 2012, 92-93, 179-190.	1.6	64
22	Assessment of foliage clumping effects on evapotranspiration estimates in forested ecosystems. Agricultural and Forest Meteorology, 2016, 216, 82-92.	1.9	64
23	Comparison of Bigâ€Leaf, Twoâ€Bigâ€Leaf, and Twoâ€Leaf Upscaling Schemes for Evapotranspiration Estimation Using Coupled Carbonâ€Water Modeling. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 207-225.	1.3	64
24	Interannual variability of net carbon exchange is related to the lag between the end-dates of net carbon uptake and photosynthesis: Evidence from long records at two contrasting forest stands. Agricultural and Forest Meteorology, 2012, 164, 29-38.	1.9	59
25	CIMES: A package of programs for determining canopy geometry and solar radiation regimes through hemispherical photographs. Computers and Electronics in Agriculture, 2011, 79, 207-215.	3.7	58
26	Predicting deciduous forest carbon uptake phenology by upscaling FLUXNET measurements using remote sensing data. Agricultural and Forest Meteorology, 2012, 165, 127-135.	1.9	58
27	Intercomparison and evaluation of spring phenology products using National Phenology Network and AmeriFlux observations in the contiguous United States. Agricultural and Forest Meteorology, 2017, 242, 33-46.	1.9	58
28	Changes in the Shadow: The Shifting Role of Shaded Leaves in Global Carbon and Water Cycles Under Climate Change. Geophysical Research Letters, 2018, 45, 5052-5061.	1.5	57
29	Improved LAI Algorithm Implementation to MODIS Data by Incorporating Background, Topography, and Foliage Clumping Information. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 1076-1088.	2.7	56
30	Circumpolar vegetation dynamics product for global change study. Remote Sensing of Environment, 2016, 182, 13-26.	4.6	54
31	Sampling gap fraction and size for estimating leaf area and clumping indices from hemispherical photographs. Canadian Journal of Forest Research, 2010, 40, 1588-1603.	0.8	50
32	Measuring fractional forest canopy element cover and openness â€“ definitions and methodologies revisited. Oikos, 2013, 122, 1283-1291.	1.2	50
33	Greening drylands despite warming consistent with carbon dioxide fertilization effect. Global Change Biology, 2021, 27, 3336-3349.	4.2	50
34	Evidence of autumn phenology control on annual net ecosystem productivity in two temperate deciduous forests. Ecological Engineering, 2013, 60, 88-95.	1.6	48
35	No evidence of widespread decline of snow cover on the Tibetan Plateau over 2000â€“2015. Scientific Reports, 2017, 7, 14645.	1.6	48
36	Trends of carbon fluxes and climate over a mixed temperateâ€“boreal transition forest in southern Ontario, Canada. Agricultural and Forest Meteorology, 2015, 211-212, 72-84.	1.9	47

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37	Large scale mapping of soil organic carbon concentration with 3D machine learning and satellite observations. Geoderma, 2022, 405, 115402.	2.3	46
38	Nitrogen Availability Dampens the Positive Impacts of CO₂ Fertilization on Terrestrial Ecosystem Carbon and Water Cycles. Geophysical Research Letters, 2017, 44, 11,590.	1.5	45
39	Country-level net primary production distribution and response to drought and land cover change. Science of the Total Environment, 2017, 574, 65-77.	3.9	43
40	Inter- and intra-annual variations of clumping index derived from the MODIS BRDF product. International Journal of Applied Earth Observation and Geoinformation, 2016, 44, 53-60.	1.4	42
41	Leaf area index for biomes of the Eastern Arc Mountains: Landsat and SPOT observations along precipitation and altitude gradients. Remote Sensing of Environment, 2012, 118, 103-115.	4.6	41
42	Spectral Response Function Comparability Among 21 Satellite Sensors for Vegetation Monitoring. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 1319-1335.	2.7	41
43	Improved assessment of gross and net primary productivity of Canada's landmass. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 1546-1560.	1.3	41
44	Spaceâ€Based Observations for Understanding Changes in the Arcticâ€Boreal Zone. Reviews of Geophysics, 2020, 58, e2019RG000652.	9.0	39
45	Comparative Performances of Airborne LiDAR Height and Intensity Data for Leaf Area Index Estimation. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 300-310.	2.3	38
46	Improved modeling of gross primary production from a better representation of photosynthetic components in vegetation canopy. Agricultural and Forest Meteorology, 2017, 233, 222-234.	1.9	34
47	Large Soil Carbon Storage in Terrestrial Ecosystems of Canada. Global Biogeochemical Cycles, 2022, 36, .	1.9	33
48	Leaf area index retrieval using gap fractions obtained from high resolution satellite data: Comparisons of approaches, scales and atmospheric effects. International Journal of Applied Earth Observation and Geoinformation, 2010, 12, 233-248.	1.4	29
49	Validating and Linking the GIMMS Leaf Area Index (LAI3g) with Environmental Controls in Tropical Africa. Remote Sensing, 2014, 6, 1973-1990.	1.8	29
50	The sensitivity based estimation of leaf area index from spectral vegetation indices. ISPRS Journal of Photogrammetry and Remote Sensing, 2012, 70, 15-25.	4.9	27
51	Accelerating Forest Growth Enhancement due to Climate and Atmospheric Changes in British Colombia, Canada over 1956-2001. Scientific Reports, 2015, 4, 4461.	1.6	27
52	Radiation contributed more than temperature to increased decadal autumn and annual carbon uptake of two eastern North America mature forests. Agricultural and Forest Meteorology, 2015, 201, 8-16.	1.9	26
53	Soil respiration mapped by exclusively use of MODIS data for forest landscapes of Saskatchewan, Canada. ISPRS Journal of Photogrammetry and Remote Sensing, 2014, 94, 80-90.	4.9	25
54	Citizen Science: linking the recent rapid advances of plant flowering in Canada with climate variability. Scientific Reports, 2013, 3, 2239.	1.6	24

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55	Tropical forest canopies and their relationships with climate and disturbance: results from a global dataset of consistent field-based measurements. Forest Ecosystems, 2018, 5, .	1.3	24
56	Continuous observation of leaf area index at Fluxnet-Canada sites. Agricultural and Forest Meteorology, 2014, 189-190, 168-174.	1.9	23
57	The potential of the greenness and radiation (GR) model to interpret 8-day gross primary production of vegetation. ISPRS Journal of Photogrammetry and Remote Sensing, 2014, 88, 69-79.	4.9	23
58	A robust leaf area index algorithm accounting for the expected errors in gap fraction observations. Agricultural and Forest Meteorology, 2018, 248, 197-204.	1.9	23
59	Spatial and temporal effects on recruitment of an Afromontane forest tree in a threatened fragmented ecosystem. Biological Conservation, 2009, 142, 518-528.	1.9	22
60	Citizen science: best practices to remove observer bias in trend analysis. International Journal of Biometeorology, 2014, 58, 2159-2163.	1.3	22
61	Exploring SMAP and OCO-2 observations to monitor soil moisture control on photosynthetic activity of global drylands and croplands. Remote Sensing of Environment, 2019, 232, 111314.	4.6	21
62	Satellite observed indicators of the maximum plant growth potential and their responses to drought over Tibetan Plateau (1982â€“2015). Ecological Indicators, 2020, 108, 105732.	2.6	20
63	Evaluation of the GLC2000 and NALC2005 land cover products for LAI retrieval over Canada. Canadian Journal of Remote Sensing, 2011, 37, 302-313.	1.1	19
64	Normalized sensitivity measures for leaf area index estimation using three-band spectral vegetation indices. International Journal of Remote Sensing, 2011, 32, 2069-2080.	1.3	19
65	Global change induced biomass growth offsets carbon released via increased forest fire and respiration of the central Canadian boreal forest. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 1275-1293.	1.3	18
66	Does Earlier and Increased Spring Plant Growth Lead to Reduced Summer Soil Moisture and Plant Growth on Landscapes Typical of Tundra-Taiga Interface?. Remote Sensing, 2019, 11, 1989.	1.8	17
67	Changes in vegetation phenology are not reflected inÂatmospheric <scp>CO</scp>₂ and ¹³C/¹²C seasonality. Global Change Biology, 2017, 23, 4029-4044.	4.2	15
68	Impacts of global change on peak vegetation growth and its timing in terrestrial ecosystems of the continental US. Global and Planetary Change, 2021, 207, 103657.	1.6	15
69	Simulating impacts of water stress on woody biomass in the southern boreal region of western Canada using a dynamic vegetation model. Agricultural and Forest Meteorology, 2014, 198-199, 142-154.	1.9	14
70	Winter teleconnections can predict the ensuing summer European crop productivity. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2265-6.	3.3	14
71	Trends and Variability in Temperature Sensitivity of Lilac Flowering Phenology. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 807-817.	1.3	14
72	Satellite-observed decrease in the sensitivity of spring phenology to climate change under high nitrogen deposition. Environmental Research Letters, 2020, 15, 094055.	2.2	13

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73	A twoâ€leaf rectangular hyperbolic model for estimating GPP across vegetation types and climate conditions. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1385-1398.	1.3	9
74	Coherence among the Northern Hemisphere land, cryosphere, and ocean responses to natural variability and anthropogenic forcing during the satellite era. Earth System Dynamics, 2016, 7, 717-734.	2.7	9
75	Large-scale leaf area index inversion algorithms from high-resolution airborne imagery. International Journal of Remote Sensing, 2011, 32, 3897-3916.	1.3	8
76	Underestimated role of East Atlantic-West Russia pattern on Amazon vegetation productivity. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1054-5.	3.3	7
77	EVALUATING A CONVOLUTIONAL NEURAL NETWORK FOR FEATURE EXTRACTION AND TREE SPECIES CLASSIFICATION USING UAV-HYPERSPECTRAL IMAGES. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-3-2020, 193-199.	0.0	7
78	Soil Moisture Active Passive Improves Global Soil Moisture Simulation in a Land Surface Scheme and Reveals Strong Irrigation Signals Over Farmlands. Geophysical Research Letters, 2021, 48, e2021GL092658.	1.5	6
79	Daily leaf area index from photosynthetically active radiation for long term records of canopy structure and leaf phenology. Agricultural and Forest Meteorology, 2021, 304-305, 108407.	1.9	4
80	The Response of Spectral Vegetation Indices and Solarâ€induced Fluorescence to Changes in Illumination Intensity and Geometry in the Days Surrounding the 2017 North American Solar Eclipse. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2020JG005774.	1.3	3
81	Delineation of Rain Areas with TRMM Microwave Observations Based on PNN. Remote Sensing, 2014, 6, 12118-12137.	1.8	2
82	Instantaneous-to-daily GPP upscaling schemes based on a coupled photosynthesis-stomatal conductance model: correcting the overestimation of GPP by directly using daily average meteorological inputs. Oecologia, 2014, 176, 703-714.	0.9	2
83	A simplified procedure for a large scale LAI inversion from high resolution satellite data. , 2009, , .		1
84	Historical and future carbon stocks in forests of northern Ontario, Canada. Carbon Balance and Management, 2021, 16, 21.	1.4	1
85	Changing Sensitivity of Diverse Tropical Biomes to Precipitation Consistent with the Expected Carbon Dioxide Fertilization Effect. Journal of Landscape Ecology(Czech Republic), 2022, 15, 78-93.	0.2	1
86	Satellite Observations of Leaf Area Index Decline Following a Spring 2010 Heatwave in Ontario's Northern Temperate Forests. Canadian Journal of Remote Sensing, 2017, 43, 563-568.	1.1	0