Alemu Gonsamo

List of Publications by Year in Descending Order

85 papers	2,803 citations	34 h-index	49 g-index
93 ext. papers	3,500 ext. citations	6.9 avg, IF	5.42 L-index

#	Paper	IF	Citations
85	Large scale mapping of soil organic carbon concentration with 3D machine learning and satellite observations. *Geoderma*, **2022**, 405, 115402	6.7	9
84	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	4.9	2
83	Greening drylands despite warming consistent with carbon dioxide fertilization effect. *Global Change Biology*, **2021**, 27, 3336-3349	11.4	2
82	Historical and future carbon stocks in forests of northern Ontario, Canada. *Carbon Balance and Management*, **2021**, 16, 21	3.6	
81	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	5.8	2
80	Impacts of global change on peak vegetation growth and its timing in terrestrial ecosystems of the continental US. *Global and Planetary Change*, **2021**, 103657	4.2	4
79	Space-Based Observations for Understanding Changes in the Arctic-Boreal Zone. *Reviews of Geophysics*, **2020**, 58, e2019RG000652	23.1	23
78	The global distribution of leaf chlorophyll content. *Remote Sensing of Environment*, **2020**, 236, 111479	13.2	57
77	Satellite-observed decrease in the sensitivity of spring phenology to climate change under high nitrogen deposition. *Environmental Research Letters*, **2020**, 15, 094055	6.2	5
76	The Response of Spectral Vegetation Indices and Solar-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	3.7	3
75	Satellite observed indicators of the maximum plant growth potential and their responses to drought over Tibetan Plateau (1982–2015). *Ecological Indicators*, **2020**, 108, 105732	5.8	12
74	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	5	12
73	Satellite detection of cumulative and lagged effects of drought on autumn leaf senescence over the Northern Hemisphere. *Global Change Biology*, **2019**, 25, 2174-2188	11.4	49
72	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	13.2	11
71	Trends and Variability in Temperature Sensitivity of Lilac Flowering Phenology. *Journal of Geophysical Research G: Biogeosciences*, **2018**, 123, 807-817	3.7	10
70	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	4.7	19
69	Comparison of Big-Leaf, Two-Big-Leaf, and Two-Leaf Upscaling Schemes for Evapotranspiration Estimation Using Coupled Carbon-Water Modeling. *Journal of Geophysical Research G: Biogeosciences*, **2018**, 123, 207-225	3.7	32

68	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	5.8	52
67	A robust leaf area index algorithm accounting for the expected errors in gap fraction observations. *Agricultural and Forest Meteorology*, **2018**, 248, 197-204	5.8	18
66	Tropical forest canopies and their relationships with climate and disturbance: results from a global dataset of consistent field-based measurements. *Forest Ecosystems*, **2018**, 5,	3.8	16
65	Peak season plant activity shift towards spring is reflected by increasing carbon uptake by extratropical ecosystems. *Global Change Biology*, **2018**, 24, 2117-2128	11.4	47
64	Contrasting responses of autumn-leaf senescence to daytime and night-time warming. *Nature Climate Change*, **2018**, 8, 1092-1096	21.4	80
63	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	4.9	34
62	Changes in vegetation phenology are not reflected in atmospheric CO and C/ C seasonality. *Global Change Biology*, **2017**, 23, 4029-4044	11.4	14
61	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	5.8	35
60	Land surface phenology derived from normalized difference vegetation index (NDVI) at global FLUXNET sites. *Agricultural and Forest Meteorology*, **2017**, 233, 171-182	5.8	100
59	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	3.7	12
58	Improved modeling of gross primary production from a better representation of photosynthetic components in vegetation canopy. *Agricultural and Forest Meteorology*, **2017**, 233, 222-234	5.8	28
57	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	1.8	
56	No evidence of widespread decline of snow cover on the Tibetan Plateau over 2000-2015. *Scientific Reports*, **2017**, 7, 14645	4.9	30
55	Country-level net primary production distribution and response to drought and land cover change. *Science of the Total Environment*, **2017**, 574, 65-77	10.2	28
54	Nitrogen Availability Dampens the Positive Impacts of CO2 Fertilization on Terrestrial Ecosystem Carbon and Water Cycles. *Geophysical Research Letters*, **2017**, 44, 11,590-11,600	4.9	34
53	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	7.3	34
52	Global vegetation productivity response to climatic oscillations during the satellite era. *Global Change Biology*, **2016**, 22, 3414-26	11.4	68
51	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	13.2	60

50	Assessment of foliage clumping effects on evapotranspiration estimates in forested ecosystems. *Agricultural and Forest Meteorology*, **2016**, 216, 82-92	5.8	47
49	Land surface phenology of China's temperate ecosystems over 1999–2013: Spatial-temporal patterns, interaction effects, covariation with climate and implications for productivity. *Agricultural and Forest Meteorology*, **2016**, 216, 177-187	5.8	87
48	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	4.8	8
47	Satellite chlorophyll fluorescence measurements reveal large-scale decoupling of photosynthesis and greenness dynamics in boreal evergreen forests. *Global Change Biology*, **2016**, 22, 2979-96	11.4	153
46	Circumpolar vegetation dynamics product for global change study. *Remote Sensing of Environment*, **2016**, 182, 13-26	13.2	44
45	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	11.5	6
44	Trends of carbon fluxes and climate over a mixed temperate-boreal transition forest in southern Ontario, Canada. *Agricultural and Forest Meteorology*, **2015**, 211-212, 72-84	5.8	39
43	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	13.2	84
42	The match and mismatch between photosynthesis and land surface phenology of deciduous forests. *Agricultural and Forest Meteorology*, **2015**, 214-215, 25-38	5.8	56
41	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	5.8	16
40	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	11.5	8
39	Modeling growing season phenology in North American forests using seasonal mean vegetation indices from MODIS. *Remote Sensing of Environment*, **2014**, 147, 79-88	13.2	91
38	Intercomparison of fraction of absorbed photosynthetically active radiation products derived from satellite data over Europe. *Remote Sensing of Environment*, **2014**, 142, 141-154	13.2	62
37	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	11.8	18
36	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	5.8	12
35	A two-leaf rectangular hyperbolic model for estimating GPP across vegetation types and climate conditions. *Journal of Geophysical Research G: Biogeosciences*, **2014**, 119, 1385-1398	3.7	6
34	Citizen science: best practices to remove observer bias in trend analysis. *International Journal of Biometeorology*, **2014**, 58, 2159-63	3.7	18
33	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	11.8	19

32	Accelerating forest growth enhancement due to climate and atmospheric changes in British Colombia, Canada over 1956-2001. *Scientific Reports*, **2014**, 4, 4461	4.9	23
31	Delineation of Rain Areas with TRMM Microwave Observations Based on PNN. *Remote Sensing*, **2014**, 6, 12118-12137	5	1
30	Validating and Linking the GIMMS Leaf Area Index (LAI3g) with Environmental Controls in Tropical Africa. *Remote Sensing*, **2014**, 6, 1973-1990	5	23
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	8.1	43
28	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, 703-14	2.9	0
27	Continuous observation of leaf area index at Fluxnet-Canada sites. *Agricultural and Forest Meteorology*, **2014**, 189-190, 168-174	5.8	19
26	Spectral Response Function Comparability Among 21 Satellite Sensors for Vegetation Monitoring. *IEEE Transactions on Geoscience and Remote Sensing*, **2013**, 51, 1319-1335	8.1	37
25	. *IEEE Transactions on Geoscience and Remote Sensing*, **2013**, 51, 1336-1348	8.1	65
24	Evidence of autumn phenology control on annual net ecosystem productivity in two temperate deciduous forests. *Ecological Engineering*, **2013**, 60, 88-95	3.9	38
23	Deriving land surface phenology indicators from CO2 eddy covariance measurements. *Ecological Indicators*, **2013**, 29, 203-207	5.8	48
22	Interannual variability of net ecosystem productivity in forests is explained by carbon flux phenology in autumn. *Global Ecology and Biogeography*, **2013**, 22, 994-1006	6.1	106
21	Measuring fractional forest canopy element cover and openness definitions and methodologies revisited. *Oikos*, **2013**, 122, 1283-1291	4	35
20	Citizen Science: linking the recent rapid advances of plant flowering in Canada with climate variability. *Scientific Reports*, **2013**, 3, 2239	4.9	17
19	Improved assessment of gross and net primary productivity of Canada s landmass. *Journal of Geophysical Research G: Biogeosciences*, **2013**, 118, 1546-1560	3.7	31
18	The sensitivity based estimation of leaf area index from spectral vegetation indices. *ISPRS Journal of Photogrammetry and Remote Sensing*, **2012**, 70, 15-25	11.8	24
17	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	13.2	36
16	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	5.8	50
15	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	4.2	54

14	Land surface phenology from optical satellite measurement and CO2 eddy covariance technique. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		83
13	Predicting deciduous forest carbon uptake phenology by upscaling FLUXNET measurements using remote sensing data. *Agricultural and Forest Meteorology*, **2012**, 165, 127-135	5.8	45
12	Evaluation of the GLC2000 and NALC2005 land cover products for LAI retrieval over Canada. *Canadian Journal of Remote Sensing*, **2011**, 37, 302-313	1.8	17
11	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	6.5	43
10	Large-scale leaf area index inversion algorithms from high-resolution airborne imagery. *International Journal of Remote Sensing*, **2011**, 32, 3897-3916	3.1	8
9	Normalized sensitivity measures for leaf area index estimation using three-band spectral vegetation indices. *International Journal of Remote Sensing*, **2011**, 32, 2069-2080	3.1	17
8	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	7.3	25
7	Sampling gap fraction and size for estimating leaf area and clumping indices from hemispherical photographs. *Canadian Journal of Forest Research*, **2010**, 40, 1588-1603	1.9	39
6	Spatial and temporal effects on recruitment of an Afromontane forest tree in a threatened fragmented ecosystem. *Biological Conservation*, **2009**, 142, 518-528	6.2	18
5	The computation of foliage clumping index using hemispherical photography. *Agricultural and Forest Meteorology*, **2009**, 149, 1781-1787	5.8	68
4	A simplified procedure for a large scale LAI inversion from high resolution satellite data **2009**,		1
3	Methodology comparison for slope correction in canopy leaf area index estimation using hemispherical photography. *Forest Ecology and Management*, **2008**, 256, 749-759	3.9	53
2	Land Resources Monitoring, Modeling, and Mapping with Remote Sensing		13
1	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*,V-3-2020, 193-199		3