Thomas Hilker

List of Publications by Year
in descending order

77 papers	6,690 citations	76326 40 h-index	85541 71 g-index
77 all docs	77 docs citations	77 times ranked	7201 citing authors

#	Article	IF	Citations
1	A new data fusion model for high spatial- and temporal-resolution mapping of forest disturbance based on Landsat and MODIS. Remote Sensing of Environment, 2009, 113, 1613-1627.	11.0	567
2	Lidar sampling for large-area forest characterization: A review. Remote Sensing of Environment, 2012, 121, 196-209.	11.0	553
3	Remote Sensing Technologies for Enhancing Forest Inventories: A Review. Canadian Journal of Remote Sensing, 2016, 42, 619-641.	2.4	493
4	The role of LiDAR in sustainable forest management. Forestry Chronicle, 2008, 84, 807-826.	0.6	291
5	Estimating canopy structure of Douglas-fir forest stands from discrete-return LiDAR. Trees - Structure and Function, 2007, 21, 295-310.	1.9	278
6	Vegetation dynamics and rainfall sensitivity of the Amazon. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16041-16046.	7.1	259
7	Generation of dense time series synthetic Landsat data through data blending with MODIS using a spatial and temporal adaptive reflectance fusion model. Remote Sensing of Environment, 2009, 113, 1988-1999.	11.0	244
8	The use of remote sensing in light use efficiency based models of gross primary production: A review of current status and future requirements. Science of the Total Environment, 2008, 404, 411-423.	8.0	240
9	Multi-angle implementation of atmospheric correction for MODIS (MAIAC): 3. Atmospheric correction. Remote Sensing of Environment, 2012, 127, 385-393.	11.0	219
10	Satellite observed widespread decline in Mongolian grasslands largely due to overgrazing. Global Change Biology, 2014, 20, 418-428.	9.5	218
11	Fusing Landsat and MODIS Data for Vegetation Monitoring. IEEE Geoscience and Remote Sensing Magazine, 2015, 3, 47-60.	9.6	216
12	Separating physiologically and directionally induced changes in PRI using BRDF models. Remote Sensing of Environment, 2008, 112, 2777-2788.	11.0	165
13	Multi-angle remote sensing of forest light use efficiency by observing PRI variation with canopy shadow fraction. Remote Sensing of Environment, 2008, 112, 3201-3211.	11.0	164
14	Virtual constellations for global terrestrial monitoring. Remote Sensing of Environment, 2015, 170, 62-76.	11.0	158
15	Assessing Tower Flux Footprint Climatology and Scaling Between Remotely Sensed and Eddy Covariance Measurements. Boundary-Layer Meteorology, 2009, 130, 137-167.	2.3	148
16	Comparing canopy metrics derived from terrestrial and airborne laser scanning in a Douglas-fir dominated forest stand. Trees - Structure and Function, 2010, 24, 819-832.	1.9	147
17	Remote sensing of tropical ecosystems: Atmospheric correction and cloud masking matter. Remote Sensing of Environment, 2012, 127, 370-384.	11.0	112
18	Improved classification of conservation tillage adoption using high temporal and synthetic satellite imagery. Remote Sensing of Environment, 2011, 115, 66-75.	11.0	110

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19	Remote sensing of photosynthetic light-use efficiency across two forested biomes: Spatial scaling. Remote Sensing of Environment, 2010, 114, 2863-2874.	11.0	107
20	Assessment of standing wood and fiber quality using ground and airborne laser scanning: A review. Forest Ecology and Management, 2011, 261, 1467-1478.	3.2	95
21	Estimation of Light-use Efficiency of Terrestrial Ecosystems from Space: A Status Report. BioScience, 2010, 60, 788-797.	4.9	93
22	Sunlight mediated seasonality in canopy structure and photosynthetic activity of Amazonian rainforests. Environmental Research Letters, 2015, 10, 064014.	5.2	90
23	Linking foliage spectral responses to canopy-level ecosystem photosynthetic light-use efficiency at a Douglas-fir forest in Canada. Canadian Journal of Remote Sensing, 2009, 35, 166-188.	2.4	89
24	Instrumentation and approach for unattended year round tower based measurements of spectral reflectance. Computers and Electronics in Agriculture, 2007, 56, 72-84.	7.7	81
25	An assessment of photosynthetic light use efficiency from space: Modeling the atmospheric and directional impacts on PRI reflectance. Remote Sensing of Environment, 2009, 113, 2463-2475.	11.0	80
26	An Improved Image Fusion Approach Based on Enhanced Spatial and Temporal the Adaptive Reflectance Fusion Model. Remote Sensing, 2013, 5, 6346-6360.	4.0	73
27	Update of forest inventory data with lidar and high spatial resolution satellite imagery. Canadian Journal of Remote Sensing, 2008, 34, 5-12.	2.4	70
28	On the measurability of change in Amazon vegetation from MODIS. Remote Sensing of Environment, 2015, 166, 233-242.	11.0	67
29	Tracking plant physiological properties from multi-angular tower-based remote sensing. Oecologia, 2011, 165, 865-876.	2.0	65
30	Climate drivers of the Amazon forest greening. PLoS ONE, 2017, 12, e0180932.	2.5	63
31	Stability of Sample-Based Scanning-LiDAR-Derived Vegetation Metrics for Forest Monitoring. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 2385-2392.	6.3	60
32	PHOTOSYNSAT, photosynthesis from space: Theoretical foundations of a satellite concept and validation from tower and spaceborne data. Remote Sensing of Environment, 2011, 115, 1918-1925.	11.0	60
33	Effects of mutual shading of tree crowns on prediction of photosynthetic light-use efficiency in a coastal Douglas-fir forest. Tree Physiology, 2008, 28, 825-834.	3.1	53
34	Inferring terrestrial photosynthetic light use efficiency of temperate ecosystems from space. Journal of Geophysical Research, 2011, 116, .	3.3	53
35	A modeling approach for upscaling gross ecosystem production to the landscape scale using remote sensing data. Journal of Geophysical Research, 2008, 113, .	3.3	49
36	Linking ground-based to satellite-derived phenological metrics in support of habitat assessment. Remote Sensing Letters, 2012, 3, 191-200.	1.4	49

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37	Detection of foliage conditions and disturbance from multi-angular high spectral resolution remote sensing. Remote Sensing of Environment, 2009, 113, 421-434.	11.0	48
38	A NEW, AUTOMATED, MULTIANGULAR RADIOMETER INSTRUMENT FOR TOWER-BASED OBSERVATIONS OF CANOPY REFLECTANCE (AMSPEC II). Instrumentation Science and Technology, 2010, 38, 319-340.	1.8	47
39	Spectral analysis of amazon canopy phenology during the dry season using a tower hyperspectral camera and modis observations. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 131, 52-64.	11.1	47
40	A simple technique for co-registration of terrestrial LiDAR observations for forestry applications. Remote Sensing Letters, 2012, 3, 239-247.	1.4	44
41	Data assimilation of photosynthetic light-use efficiency using multi-angular satellite data: II Model implementation and validation. Remote Sensing of Environment, 2012, 121, 287-300.	11.0	39
42	Comparison of Terrestrial and Airborne LiDAR in Describing Stand Structure of a Thinned Lodgepole Pine Forest. Journal of Forestry, 2012, 110, 97-104.	1.0	34
43	Automated reconstruction of tree and canopy structure for modeling the internal canopy radiation regime. Remote Sensing of Environment, 2013, 136, 286-300.	11.0	34
44	Detecting Trends in Landuse and Landcover Change of Nech Sar National Park, Ethiopia. Environmental Management, 2016, 57, 137-147.	2.7	33
45	Seasonality and drought effects of Amazonian forests observed from multi-angle satellite data. Remote Sensing of Environment, 2015, 171, 278-290.	11.0	32
46	Dynamics of spectral bio-indicators and their correlations with light use efficiency using directional observations at a Douglas-fir forest. Measurement Science and Technology, 2009, 20, 095107.	2.6	30
47	Data assimilation of photosynthetic light-use efficiency using multi-angular satellite data: I. Model formulation. Remote Sensing of Environment, 2012, 121, 301-308.	11.0	30
48	Consistency of vegetation index seasonality across the Amazon rainforest. International Journal of Applied Earth Observation and Geoinformation, 2016, 52, 42-53.	2.8	29
49	Characterizing stand-replacing disturbance in western Alberta grizzly bear habitat, using a satellite-derived high temporal and spatial resolution change sequence. Forest Ecology and Management, 2011, 261, 865-877.	3.2	28
50	Prediction of Wood Fiber Attributes from LiDAR-Derived Forest Canopy Indicators. Forest Science, 2013, 59, 231-242.	1.0	26
51	Comparing Modeling Methods for Predicting Forest Attributes Using LiDAR Metrics and Ground Measurements. Canadian Journal of Remote Sensing, 2016, 42, 739-765.	2.4	25
52	Detecting and Attributing Drivers of Forest Disturbance in the Colombian Andes Using Landsat Time-Series. Forests, 2018, 9, 269.	2.1	24
53	Remote sensing of transpiration and heat fluxes using multi-angle observations. Remote Sensing of Environment, 2013, 137, 31-42.	11.0	22
54	New approaches in multi-angular proximal sensing of vegetation: Accounting for spatial heterogeneity and diffuse radiation in directional reflectance distribution models. Remote Sensing of Environment, 2016, 187, 447-457.	11.0	21

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55	Implications of differing input data sources and approaches upon forest carbon stock estimation. Environmental Monitoring and Assessment, 2010, 166, 543-561.	2.7	20
56	Process-Based Modeling to Assess the Effects of Recent Climatic Variation on Site Productivity and Forest Function across Western North America. Forests, 2014, 5, 518-534.	2.1	20
57	Lidar calibration and validation for geometric-optical modeling with Landsat imagery. Remote Sensing of Environment, 2012, 124, 384-393.	11.0	19
58	Linking stand architecture with canopy reflectance to estimate vertical patterns of light-use efficiency. Remote Sensing of Environment, 2017, 194, 322-330.	11.0	19
59	Comparison of uncertainty in per unit area estimates of aboveground biomass for two selected model sets. Forest Ecology and Management, 2015, 354, 18-25.	3.2	17
60	Simulation of Multiangular Remote Sensing Products Using Small Satellite Formations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 638-653.	4.9	17
61	Leveraging Multi-Sensor Time Series Datasets to Map Short- and Long-Term Tropical Forest Disturbances in the Colombian Andes. Remote Sensing, 2017, 9, 179.	4.0	17
62	Assessing the impact of N-fertilization on biochemical composition and biomass of a Douglas-fir canopyâ€"A remote sensing approach. Agricultural and Forest Meteorology, 2012, 153, 124-133.	4.8	14
63	Vegetation chlorophyll estimates in the Amazon from multi-angle MODIS observations and canopy reflectance model. International Journal of Applied Earth Observation and Geoinformation, 2017, 58, 278-287.	2.8	14
64	Progress in Remote Sensing of Photosynthetic Activity over the Amazon Basin. Remote Sensing, 2017, 9, 48.	4.0	11
65	Technological Advancement in Tower-Based Canopy Reflectance Monitoring: The AMSPEC-III System. Sensors, 2015, 15, 32020-32030.	3.8	9
66	Examination of uncertainty in per unit area estimates of aboveground biomass using terrestrial LiDAR and ground data. Canadian Journal of Forest Research, 2016, 46, 706-715.	1.7	8
67	Biweekly disturbance capture and attribution: caseÂstudy in western Alberta grizzly bear habitat. Journal of Applied Remote Sensing, 2011, 5, 053568.	1.3	7
68	Potentials and limitations for estimating daytime ecosystem respiration by combining tower-based remote sensing and carbon flux measurements. Remote Sensing of Environment, 2014, 150, 44-52.	11.0	7
69	Characterizing a Decade of Disturbance Events Using Landsat and MODIS Satellite Imagery in Western Alberta, Canada for Grizzly Bear Management. Canadian Journal of Remote Sensing, 2014, 40, 336-347.	2.4	6
70	Scaling estimates of vegetation structure in Amazonian tropical forests using multi-angle MODIS observations. International Journal of Applied Earth Observation and Geoinformation, 2016, 52, 580-590.	2.8	6
71	Modeling Gross Primary Production for Sunlit and Shaded Canopies Across an Evergreen and a Deciduous Site in Canada. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 1859-1873.	6.3	5
72	Gross primary productivity estimation using multi-angular measurements from small satellite clusters. , 2014, , .		2

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73	Relating a Spectral Index from MODIS and Tower-Based Measurements to Ecosystem Light Use Efficiency for a Fluxnet-Canada Coniferous Forest. , 2008, , .		0
74	Forest parameters estimation from SAR and Landsat data using look-up table inversion. , 2014, , .		0
75	Reply to Gonsamo et al.: Effect of the Eastern Atlantic-West Russia pattern on Amazon vegetation has not been demonstrated. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1056-E1056.	7.1	0
76	The Earth Photosynthesis Imaging Constellation: Measuring Photosynthesis with a cubesat platform. , 2015, , .		0
77	An Approach for Determining Relationships Between Disturbance and Habitat Selection Using Bi-weekly Synthetic Images and Telemetry Data. Remote Sensing and Digital Image Processing, 2016, , 341-356.	0.7	0