Richard M Lucas

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8622177/publications.pdf

Version: 2024-02-01

147 papers	9,585 citations	38660 50 h-index	39575 94 g-index

152 all docs	152 docs citations	152 times ranked	10835 citing authors

#	Article	IF	Citations
1	An integrated panâ€tropical biomass map using multiple reference datasets. Global Change Biology, 2016, 22, 1406-1420.	4.2	469
2	New global forest/non-forest maps from ALOS PALSAR data (2007â€“2010). Remote Sensing of Environment, 2014, 155, 13-31.	4.6	463
3	Remote sensing for conservation monitoring: Assessing protected areas, habitat extent, habitat condition, species diversity, and threats. Ecological Indicators, 2013, 33, 45-59.	2.6	445
4	On the Use of Unmanned Aerial Systems for Environmental Monitoring. Remote Sensing, 2018, 10, 641.	1.8	433
5	The Global Mangrove Watchâ€”A New 2010 Global Baseline of Mangrove Extent. Remote Sensing, 2018, 10, 1669.	1.8	414
6	The State of the World's Mangrove Forests: Past, Present, and Future. Annual Review of Environment and Resources, 2019, 44, 89-115.	5.6	386
7	Distribution and drivers of global mangrove forest change, 1996â€“2010. PLoS ONE, 2017, 12, e0179302.	1.1	380
8	Environmental science: Agree on biodiversity metrics to track from space. Nature, 2015, 523, 403-405.	13.7	329
9	Early recognition of glacial lake hazards in the Himalaya using remote sensing datasets. Global and Planetary Change, 2007, 56, 137-152.	1.6	252
10	Framing the concept of satellite remote sensing essential biodiversity variables: challenges and future directions. Remote Sensing in Ecology and Conservation, 2016, 2, 122-131.	2.2	243
11	An Evaluation of the ALOS PALSAR L-Band Backscatterâ€”Above Ground Biomass Relationship Queensland, Australia: Impacts of Surface Moisture Condition and Vegetation Structure. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 576-593.	2.3	216
12	A review of remote sensing technology in support of the Kyoto Protocol. Environmental Science and Policy, 2003, 6, 441-455.	2.4	207
13	Satellite remote sensing of ecosystem functions: opportunities, challenges and way forward. Remote Sensing in Ecology and Conservation, 2018, 4, 71-93.	2.2	176
14	Rule-based classification of multi-temporal satellite imagery for habitat and agricultural land cover mapping. ISPRS Journal of Photogrammetry and Remote Sensing, 2007, 62, 165-185.	4.9	170
15	The delineation of tree crowns in Australian mixed species forests using hyperspectral Compact Airborne Spectrographic Imager (CASI) data. Remote Sensing of Environment, 2006, 101, 230-248.	4.6	168
16	Identifying terrestrial carbon sinks: Classification of successional stages in regenerating tropical forest from Landsat TM data. Remote Sensing of Environment, 1996, 55, 205-216.	4.6	167
17	Tropical Forest Biomass Density Estimation Using JERS-1 SAR: Seasonal Variation, Confidence Limits, and Application to Image Mosaics. Remote Sensing of Environment, 1998, 63, 126-139.	4.6	144
18	High-resolution mapping of losses and gains of Earthâ€™s tidal wetlands. Science, 2022, 376, 744-749.	6.0	138

#	Article	IF	Citations
19	Mapping changes in the largest continuous Amazonian mangrove belt using object-based classification of multisensor satellite imagery. Estuarine, Coastal and Shelf Science, 2013, 117, 83-93.	0.9	130
20	The potential of L-band SAR for quantifying mangrove characteristics and change: case studies from the tropics. Aquatic Conservation: Marine and Freshwater Ecosystems, 2007, 17, 245-264.	0.9	127
21	Understanding the relationship between aboveground biomass and ALOS PALSAR data in the forests of Guinea-Bissau (West Africa). Remote Sensing of Environment, 2012, 121, 426-442.	4.6	125
22	Empirical relationships between AIRSAR backscatter and LiDAR-derived forest biomass, Queensland, Australia. Remote Sensing of Environment, 2006, 100, 407-425.	4.6	122
23	Managing mangrove forests from the sky: Forest inventory using field data and Unmanned Aerial Vehicle (UAV) imagery in the Matang Mangrove Forest Reserve, peninsular Malaysia. Forest Ecology and Management, 2018, 411, 35-45.	1.4	121
24	A LiDAR-derived canopy density model for tree stem and crown mapping in Australian forests. Remote Sensing of Environment, 2007, 111, 493-518.	4.6	119
25	Combining satellite data for better tropical forest monitoring. Nature Climate Change, 2016, 6, 120-122.	8.1	112
26	Aboveground biomass density models for NASAâ€™s Global Ecosystem Dynamics Investigation (GEDI) lidar mission. Remote Sensing of Environment, 2022, 270, 112845.	4.6	108
27	Direct retrieval of canopy gap probability using airborne waveform lidar. Remote Sensing of Environment, 2013, 134, 24-38.	4.6	102
28	A global biophysical typology of mangroves and its relevance for ecosystem structure and deforestation. Scientific Reports, 2020, 10, 14652.	1.6	94
29	The role of satellite remote sensing in structured ecosystem risk assessments. Science of the Total Environment, 2018, 619-620, 249-257.	3.9	93
30	Optical remote sensing techniques in high-mountain environments: application to glacial hazards. Progress in Physical Geography, 2005, 29, 475-505.	1.4	92
31	The Role and Need for Space-Based Forest Biomass-Related Measurements in Environmental Management and Policy. Surveys in Geophysics, 2019, 40, 757-778.	2.1	92
32	Multi-resolution time series imagery for forest disturbance and regrowth monitoring in Queensland, Australia. Remote Sensing of Environment, 2015, 158, 156-168.	4.6	89
33	Classification of Australian forest communities using aerial photography, CASI and HyMap data. Remote Sensing of Environment, 2008, 112, 2088-2103.	4.6	85
34	The Remote Sensing and GIS Software Library (RSGISLib). Computers and Geosciences, 2014, 62, 216-226.	2.0	84
35	Area and Age of Secondary Forests in Brazilian Amazonia 1978â€“2002: An Empirical Estimate. Ecosystems, 2006, 9, 609-623.	1.6	79
36	Updating the Phase 1 habitat map of Wales, UK, using satellite sensor data. ISPRS Journal of Photogrammetry and Remote Sensing, 2011, 66, 81-102.	4.9	75

#	Article	IF	Citations
37	Retrieving forest biomass through integration of CASI and LiDAR data. International Journal of Remote Sensing, 2008, 29, 1553-1577.	1.3	73
38	Microwave scattering from mixed-species forests, Queensland, Australia. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 2142-2159.	2.7	71
39	Mapping Mangrove Extent and Change: A Globally Applicable Approach. Remote Sensing, 2018, 10, 1466.	1.8	70
40	Mangrove response to environmental change in Australia's Gulf of Carpentaria. Ecology and Evolution, 2016, 6, 3523-3539.	0.8	69
41	Mapping the multi-decadal mangrove dynamics of the Australian coastline. Remote Sensing of Environment, 2020, 238, 111185.	4.6	66
42	Using landscape history to predict biodiversity patterns in fragmented landscapes. Ecology Letters, 2013, 16, 1221-1233.	3.0	65
43	Translating land cover/land use classifications to habitat taxonomies for landscape monitoring: a Mediterranean assessment. Landscape Ecology, 2013, 28, 905-930.	1.9	64
44	Integration of radar and Landsat-derived foliage projected cover for woody regrowth mapping, Queensland, Australia. Remote Sensing of Environment, 2006, 100, 388-406.	4.6	63
45	The Earth Observation Data for Habitat Monitoring (EODHaM) system. International Journal of Applied Earth Observation and Geoinformation, 2015, 37, 17-28.	1.4	60
46	Quantifying Australian forest floristics and structure using small footprint LiDAR and large scale aerial photography. Forest Ecology and Management, 2006, 223, 379-394.	1.4	59
47	A Python-Based Open Source System for Geographic Object-Based Image Analysis (GEOBIA) Utilizing Raster Attribute Tables. Remote Sensing, 2014, 6, 6111-6135.	1.8	59
48	A Generalized Radar Backscattering Model Based on Wave Theory for Multilayer Multispecies Vegetation. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4832-4845.	2.7	58
49	Structural characterisation of mangrove forests achieved through combining multiple sources of remote sensing data. Remote Sensing of Environment, 2020, 237, 111543.	4.6	57
50	Contribution of L-band SAR to systematic global mangrove monitoring. Marine and Freshwater Research, 2014, 65, 589.	0.7	52
51	Hyperspectral remote sensing of peatland floristic gradients. Remote Sensing of Environment, 2015, 162, 99-111.	4.6	50
52	A comprehensive framework for assessing the accuracy and uncertainty of global above-ground biomass maps. Remote Sensing of Environment, 2022, 272, 112917.	4.6	48
53	Land Use and Land Cover Change Dynamics across the Brazilian Amazon: Insights from Extensive Time-Series Analysis of Remote Sensing Data. PLoS ONE, 2014, 9, e104144.	1.1	45
54	The extent of mangrove change and potential for recovery following severe Tropical Cyclone Yasi, Hinchinbrook Island, Queensland, Australia. Ecology and Evolution, 2018, 8, 10416-10434.	0.8	45

#	Article	IF	Citations
55	Radar backscattering model for multilayer mixed-species forests. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 2612-2626.	2.7	44
56	Sorted pulse data (SPD) library. Part I: A generic file format for LiDAR data from pulsed laser systems in terrestrial environments. Computers and Geosciences, 2013, 56, 197-206.	2.0	44
57	Detection of changes in semi-natural grasslands by cross correlation analysis with WorldView-2 images and new Landsat 8 data. Remote Sensing of Environment, 2016, 175, 65-72.	4.6	44
58	Mapping major land cover types and retrieving the age of secondary forests in the Brazilian Amazon by combining single-date optical and radar remote sensing data. Remote Sensing of Environment, 2017, 194, 16-32.	4.6	44
59	The Forest Observation System, building a global reference dataset for remote sensing of forest biomass. Scientific Data, 2019, 6, 198.	2.4	44
60	Satellite Earth observation data to identify anthropogenic pressures in selected protected areas. International Journal of Applied Earth Observation and Geoinformation, 2015, 37, 124-132.	1.4	41
61	Mangrove Response to Environmental Changes Predicted Under Varying Climates: Case Studies from Australia. Current Forestry Reports, 2015, 1, 178-194.	3.4	40
62	Harmonization of the Land Cover Classification System (LCCS) with the General Habitat Categories (GHC) classification system. Ecological Indicators, 2014, 36, 290-300.	2.6	39
63	Mapping tropical forest fractional cover from coarse spatial resolution remote sensing imagery. Plant Ecology, 1997, 131, 143-154.	0.7	38
64	An Analysis of the Early Regeneration of Mangrove Forests using Landsat Time Series in the Matang Mangrove Forest Reserve, Peninsular Malaysia. Remote Sensing, 2019, 11, 774.	1.8	38
65	The potential of synthetic aperture radar (SAR) for quantifying the biomass of Australia's woodlands.. Rangeland Journal, 2000, 22, 124.	0.4	35
66	Global Mangrove Watch: Updated 2010 Mangrove Forest Extent (v2.5). Remote Sensing, 2022, 14, 1034.	1.8	35
67	A multi-resolution area-based technique for automatic multi-modal image registration. Image and Vision Computing, 2010, 28, 1203-1219.	2.7	34
68	Measurement of Forest Above-Ground Biomass Using Active and Passive Remote Sensing at Large (Subnational to Global) Scales. Current Forestry Reports, 2015, 1, 162-177.	3.4	34
69	Sorted pulse data (SPD) libraryâ€"Part II: A processing framework for LiDAR data from pulsed laser systems in terrestrial environments. Computers and Geosciences, 2013, 56, 207-215.	2.0	33
70	Expert knowledge for translating land cover/use maps to General Habitat Categories (GHC). Landscape Ecology, 2014, 29, 1045-1067.	1.9	33
71	Challenges and opportunities in harnessing satellite remote-sensing for biodiversity monitoring. Ecological Informatics, 2015, 30, 207-214.	2.3	33
72	<scp>Remap</scp>: An online remote sensing application for land cover classification and monitoring. Methods in Ecology and Evolution, 2018, 9, 2019-2027.	2.2	33

#	Article	IF	Citations
73	Ailanthus altissima mapping from multi-temporal very high resolution satellite images. ISPRS Journal of Photogrammetry and Remote Sensing, 2019, 147, 90-103.	4.9	33
74	Multi-spectral classification of snow using NOAA AVHRR imagery. International Journal of Remote Sensing, 1989, 10, 907-916.	1.3	30
75	A Structural Classification of Australian Vegetation Using ICESat/GLAS, ALOS PALSAR, and Landsat Sensor Data. Remote Sensing, 2019, 11, 147.	1.8	30
76	Enhanced Simulation of Radar Backscatter From Forests Using LiDAR and Optical Data. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 2736-2754.	2.7	29
77	Characterisation and mapping of forest communities by clustering individual tree crowns. Remote Sensing of Environment, 2010, 114, 2536-2547.	4.6	29
78	Very high resolution Earth observation features for monitoring plant and animal community structure across multiple spatial scales in protected areas. International Journal of Applied Earth Observation and Geoinformation, 2015, 37, 100-105.	1.4	29
79	Analysis by Wavelet Frames of Spatial Statistics in SAR Data for Characterizing Structural Properties of Forests. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 494-507.	2.7	28
80	Classification of forest composition using polarimetric decomposition in multiple landscapes. Remote Sensing of Environment, 2013, 131, 206-214.	4.6	28
81	Mapping forest growth and degradation stage in the Brigalow Belt Bioregion of Australia through integration of ALOS PALSAR and Landsat-derived foliage projective cover data. Remote Sensing of Environment, 2014, 155, 42-57.	4.6	27
82	Historical perspectives on the mangroves of Kakadu National Park. Marine and Freshwater Research, 2018, 69, 1047.	0.7	26
83	Implications of land-use history for forest regeneration in the Brazilian Amazon. Canadian Journal of Remote Sensing, 2009, 35, 534-553.	1.1	23
84	The K&C PALSAR Mosaic of the African Continent: Processing Issues and First Thematic Results. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 3593-3610.	2.7	23
85	Land Cover Mapping using Digital Earth Australia. Data, 2019, 4, 143.	1.2	23
86	Knowledge-Based Classification of Grassland Ecosystem Based on Multi-Temporal WorldView-2 Data and FAO-LCCS Taxonomy. Remote Sensing, 2020, 12, 1447.	1.8	23
87	Estimation of the Areal Extent of Land Cover Classes that Only Occur at a Sub-Pixel Level. Canadian Journal of Remote Sensing, 1996, 22, 428-432.	1.1	21
88	A new map of mangroves for Kakadu National Park, Northern Australia, based on stereo aerial photography. Aquatic Conservation: Marine and Freshwater Ecosystems, 2007, 17, 446-467.	0.9	19
89	An approach to monitoring mangrove extents through time-series comparison of JERS-1 SAR and ALOS PALSAR data. Wetlands Ecology and Management, 2015, 23, 3-17.	0.7	19
90	Can we predict habitat quality from space? A multi-indicator assessment based on an automated knowledge-driven system. International Journal of Applied Earth Observation and Geoinformation, 2015, 37, 106-113.	1.4	19

#	Article	IF	Citations
91	A revised above-ground maximum biomass layer for the Australian continent. Forest Ecology and Management, 2019, 432, 264-275.	1.4	19
92	Evaluating TERRA-1 MODIS data for discrimination of tropical secondary forest regeneration stages in the Brazilian Legal Amazon. Geophysical Research Letters, 2002, 29, 42-1-42-4.	1.5	18
93	An Approach to Mapping Forest Growth Stages in Queensland, Australia through Integration of ALOS PALSAR and Landsat Sensor Data. Remote Sensing, 2012, 4, 2236-2255.	1.8	18
94	Sea surface wind retrieval in coastal areas by means of Sentinel-1 and numerical weather prediction model data. Remote Sensing of Environment, 2019, 225, 379-391.	4.6	17
95	Monitoring Matang's Mangroves in Peninsular Malaysia through Earth observations: A globally relevant approach. Land Degradation and Development, 2021, 32, 354-373.	1.8	15
96	An accuracy analysis of mangrove tree height mensuration using forestry techniques, hypsometers and UAVs. Estuarine, Coastal and Shelf Science, 2021, 248, 106971.	0.9	15
97	Integrated Land Cover and Change Classifications. , 2017, , 295-308.		14
98	Detection of Forest Disturbance With Spaceborne Repeat-Pass SAR Interferometry. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 2424-2439.	2.7	14
99	Synergy of airborne LiDAR and Worldview-2 satellite imagery for land cover and habitat mapping: A BIO_SOS-EODHaM case study for the Netherlands. International Journal of Applied Earth Observation and Geoinformation, 2015, 37, 48-55.	1.4	13
100	Mangrove Response to Environmental Change in Kakadu National Park. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 5612-5620.	2.3	13
101	Estimating Invasion Success by Non-Native Trees in a National Park Combining WorldView-2 Very High Resolution Satellite Data and Species Distribution Models. Diversity, 2017, 9, 6.	0.7	12
102	Variations of carbon allocation and turnover time across tropical forests. Global Ecology and Biogeography, 2021, 30, 1271-1285.	2.7	12
103	Remote Sensing Measures Restoration Successes, but Canopy Heights Lag in Restoring Floodplain Vegetation. Remote Sensing, 2016, 8, 542.	1.8	11
104	Living Earth: Implementing national standardised land cover classification systems for Earth Observation in support of sustainable development. Big Earth Data, 2021, 5, 368-390.	2.0	11
105	The Kyoto & Carbon Initiative â€" A Brief Summary. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 551-553.	2.3	10
106	Digital Earth for Sustainable Development Goals. , 2020, , 443-471.		9
107	Outâ€ofâ€Plane Buckling of Restrained Thin Rings of General Open Section. Journal of Engineering Mechanics - ASCE, 1994, 120, 929-948.	1.6	7
108	An Area based Technique for Image-to-Image Registration of Multi-Modal Remote Sensing Data. , 2008, , .		7

#	Article	IF	Citations
109	Spatial analysis of early mangrove regeneration in the Matang Mangrove Forest Reserve, Peninsular Malaysia, using geomatics. Forest Ecology and Management, 2020, 472, 118213.	1.4	7
110	Spatial Ecology of Mangrove Forests: A Remote Sensing Perspective. , 2017, , 87-112.		6
111	Assessing Human Impacts on Australian Forests through Integration of Remote Sensing Data. , 2008, , 213-239.		6
112	Changing snow cover and the net mass balance of StorglaciÃren, northern Sweden. Annals of Glaciology, 2008, 49, 199-204.	2.8	5
113	Introducing the Book â€œThe Roles of Remote Sensing in Nature Conservationâ€• , 2017, , 3-10.		5
114	National scale mapping of larch plantations for Wales using the Sentinel-2 data archive. Forest Ecology and Management, 2021, 501, 119679.	1.4	5
115	Combining Texture and Hyperspectral Information for the Classification of Tree Species in Australian Savanna Woodlands. Lecture Notes in Geoinformation and Cartography, 2009, , 19-26.	0.5	5
116	Hyperspectral Data for Assessing Carbon Dynamics and Biodiversity of Forests. , 2008, , 47-86.		5
117	Managing uncertainty when aggregating from pixels to objects: habitats, context-sensitive mapping and possibility theory. International Journal of Remote Sensing, 2010, 31, 1061-1068.	1.3	4
118	Progress in Grassland Cover Conservation in Southern European Mountains by 2020: A Transboundary Assessment in the Iberian Peninsula with Satellite Observations (2002â€“2019). Remote Sensing, 2021, 13, 3019.	1.8	4
119	Living Wales â€“ automatic and routine environmental monitoring using multi-source Earth observation data. , 2020, , .		4
120	Can Mangrove Silviculture Be Carbon Neutral?. Remote Sensing, 2022, 14, 2920.	1.8	4
121	Observation of vegetation vertical structure and disturbance using L-band InSAR over the Injune region in Australia. , 2012, , .		3
122	Land cover to habitat map translation: Disambiguation rules based on Earth Observation data. , 2013, , .		3
123	Exploring the Relationship between Forest Canopy Height and Canopy Density from Spaceborne LiDAR Observations. Remote Sensing, 2021, 13, 4961.	1.8	3
124	Variations in mangrove regeneration rates under different management plans: An analysis of Landsat time-series in the Matang Mangrove Forest Reserve, Peninsular Malaysia. , 2017, , .		2
125	Change Detection in (Semi-) Natural Grassland Ecosystems for Biodiversity Monitoring Using Open Data. , 2018, , .		2
126	Remote Sensing Instruments: Sensor Types Relevant to Wetlands. , 2018, , 1603-1607.		2

#	Article	IF	Citations
127	An assessment of TanDEM-X GlobalDEM over rural and urban areas. Proceedings of SPIE, 2014, , .	0.8	1
128	Earth Observation Methods for Wetlands: Overview. , 2018, , 1585-1593.		1
129	Electromagnetic Spectrum: Regions Relevant to Wetlands. , 2018, , 1595-1601.		1
130	Remote Sensing of Water in Wetlands: Inundation Patterns and Extent. , 2016, , 1-9.		1
131	Monitoring Plant Diversity to Support Agri-Environmental Schemes: Evaluating Statistical Models Informed by Satellite and Local Factors in Southern European Mountain Pastoral Systems. Diversity, 2022, 14, 8.	0.7	1
132	Title is missing!. Forest Ecology and Management, 2010, 259, 1213-1214.	1.4	0
133	Analysis and error assessment on the use of segmentation for estimating forest structural characteristics from lidar and radar. , 2012, , .		0
134	Application of multi-resolution remotely sensed imagery for the monitoring of land cover change. , 2013, , .		0
135	Analysis of TanDEM-X InSAR data aimed at the characterisation of vegetation vertical structure: A case study in injune (Queensland, Australia). , 2013, , .		0
136	Contribution of ALOS PALSAR data to forest characterization and monitoring in Australia. , 2015, , .		0
137	Towards Operational Detection of Forest Ecosystem Changes in Protected Areas. Remote Sensing, 2016, 8, 850.	1.8	0
138	Expected Advances in a Rapidly Developing Work Area. , 2017, , 309-318.		0
139	LARGE-scale fine-resolution products of forest disturbance using new approaches from spacborne sar interferometry. , 2017, , .		0
140	Living WALES â€" National Level Mapping and Monitoring Though Earth Observations, Ground Data and Models. , 2018, , .		0
141	Remote Sensing of Wetland Types: Mangroves. , 2018, , 1641-1647.		0
142	Earth Observation Methods for Wetlands: Overview. , 2016, , 1-9.		0
143	Remote Sensing of Wetland Types: Mangroves. , 2016, , 1-6.		0
144	Remote Sensing of Wetland Types: Semiarid Wetlands of Southern Hemisphere. , 2018, , 1665-1671.		0

#	Article	IF	Citations
145	Remote Sensing of Wetland Types: Temperate Bogs, Mires, and Fens. , 2018, , 1679-1683.		0
146	Remote Sensing of Water in Wetlands: Inundation Patterns and Extent. , 2018, , 1609-1617.		0
147	Remote Sensing of Wetland Types: Sea Grasses. , 2018, , 1659-1663.		0