

# Michael Wurm

## List of Publications by Year in descending order

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90  
papers

2,235  
citations

218592

26  
h-index

243529

44  
g-index

94  
all docs

94  
docs citations

94  
times ranked

2016  
citing authors

#	ARTICLE	IF	CITATIONS
1	Semantic segmentation of slums in satellite images using transfer learning on fully convolutional neural networks. ISPRS Journal of Photogrammetry and Remote Sensing, 2019, 150, 59-69.	4.9	233
2	Delineation of Central Business Districts in mega city regions using remotely sensed data. Remote Sensing of Environment, 2013, 136, 386-401.	4.6	134
3	The morphology of the Arrival City - A global categorization based on literature surveys and remotely sensed data. Applied Geography, 2018, 92, 150-167.	1.7	116
4	Unsupervised change detection in VHR remote sensing imagery – an object-based clustering approach in a dynamic urban environment. International Journal of Applied Earth Observation and Geoinformation, 2017, 54, 15-27.	1.4	106
5	A new ranking of the world's largest cities – Do administrative units obscure morphological realities?. Remote Sensing of Environment, 2019, 232, 111353.	4.6	96
6	Measuring morphological polycentricity - A comparative analysis of urban mass concentrations using remote sensing data. Computers, Environment and Urban Systems, 2017, 64, 42-56.	3.3	90
7	Slum mapping in polarimetric SAR data using spatial features. Remote Sensing of Environment, 2017, 194, 190-204.	4.6	82
8	Detecting social groups from space – Assessment of remote sensing-based mapped morphological slums using income data. Remote Sensing Letters, 2018, 9, 41-50.	0.6	78
9	Object-based feature extraction using high spatial resolution satellite data of urban areas. Journal of Spatial Science, 2010, 55, 117-132.	1.0	76
10	Flood risks in urbanized areas – multi-sensoral approaches using remotely sensed data for risk assessment. Natural Hazards and Earth System Sciences, 2011, 11, 431-444.	1.5	69
11	The similar size of slums. Habitat International, 2018, 73, 79-88.	2.3	67
12	Object-based image information fusion using multisensor earth observation data over urban areas. International Journal of Image and Data Fusion, 2011, 2, 121-147.	0.8	61
13	Spatial and semantic effects of LUCAS samples on fully automated land use/land cover classification in high-resolution Sentinel-2 data. International Journal of Applied Earth Observation and Geoinformation, 2020, 88, 102065.	1.4	59
14	A Comprehensive View on Urban Spatial Structure: Urban Density Patterns of German City Regions. ISPRS International Journal of Geo-Information, 2016, 5, 76.	1.4	57
15	Remote Sensing-Based Characterization of Settlement Structures for Assessing Local Potential of District Heat. Remote Sensing, 2011, 3, 1447-1471.	1.8	39
16	Large-Area Characterization of Urban Morphology – Mapping of Built-Up Height and Density Using TanDEM-X and Sentinel-2 Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 2912-2927.	2.3	39
17	Investigating the Applicability of Cartosat-1 DEMs and Topographic Maps to Localize Large-Area Urban Mass Concentrations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 4138-4152.	2.3	38
18	Remote Sensing in Environmental Justice Research – A Review. ISPRS International Journal of Geo-Information, 2019, 8, 20.	1.4	38

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19	Urbanization in China from the end of 1980s until 2010 – spatial dynamics and patterns of growth using EO-data. <i>International Journal of Digital Earth</i> , 2019, 12, 78-94.	1.6	38
20	Satellite-Based Mapping of Urban Poverty With Transfer-Learned Slum Morphologies. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2020, 13, 5251-5263.	2.3	37
21	Building Types™ Classification Using Shape-Based Features and Linear Discriminant Functions. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2016, 9, 1901-1912.	2.3	36
22	Estimating quality of life dimensions from urban spatial pattern metrics. <i>Computers, Environment and Urban Systems</i> , 2021, 85, 101549.	3.3	32
23	Normalization of TanDEM-X DSM Data in Urban Environments With Morphological Filters. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2015, 53, 4348-4362.	2.7	31
24	Deep Learning-Based Generation of Building Stock Data from Remote Sensing for Urban Heat Demand Modeling. <i>ISPRS International Journal of Geo-Information</i> , 2021, 10, 23.	1.4	29
25	Patterns of Eastern European urbanisation in the mirror of Western trends – Convergent, unique or hybrid?. <i>Environment and Planning B: Urban Analytics and City Science</i> , 2019, 46, 1206-1225.	1.0	28
26	The Physical Density of the City – Deconstruction of the Delusive Density Measure with Evidence from Two European Megacities. <i>ISPRS International Journal of Geo-Information</i> , 2016, 5, 206.	1.4	27
27	The dynamics of poor urban areas - analyzing morphologic transformations across the globe using Earth observation data. <i>Cities</i> , 2020, 107, 102905.	2.7	27
28	Urban structuring using multisensoral remote sensing data: By the example of the German cities Cologne and Dresden. , 2009, , .		26
29	Urbanization that hides in the dark – Spotting China™s –ghost neighborhoods– from space. <i>Landscape and Urban Planning</i> , 2020, 200, 103822.	3.4	26
30	Are the Poor Digitally Left Behind? Indications of Urban Divides Based on Remote Sensing and Twitter Data. <i>ISPRS International Journal of Geo-Information</i> , 2018, 7, 304.	1.4	25
31	Size distributions of slums across the globe using different data and classification methods. <i>European Journal of Remote Sensing</i> , 2019, 52, 99-111.	1.7	25
32	Urbanization between compactness and dispersion: designing a spatial model for measuring 2D binary settlement landscape configurations. <i>International Journal of Digital Earth</i> , 2019, 12, 679-698.	1.6	24
33	Integrating remote sensing and social science. , 2009, , .		19
34	Urban structure analysis of mega city Mexico City using multisensoral remote sensing data. , 2008, , .		18
35	Misperceptions of Predominant Slum Locations? Spatial Analysis of Slum Locations in Terms of Topography Based on Earth Observation Data. <i>Remote Sensing</i> , 2020, 12, 2474.	1.8	18
36	Uncertainties of Human Perception in Visual Image Interpretation in Complex Urban Environments. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2020, 13, 4229-4241.	2.3	17

#	ARTICLE	IF	CITATIONS
37	Dichter dran! Neue Möglichkeiten der Vernetzung von Geobasis-, Statistik- und Erdbeobachtungsdaten zur räumlichen Analyse und Visualisierung von Stadtstrukturen mit Dichteoberflächen und -profilen. Raumforschung Und Raumordnung   Spatial Research and Planning, 2014, 72, 179-194.	1.5	15
38	Classification of urban structural types with multisource data and structured models. , 2015, , .		15
39	Which city is the greenest? A multi-dimensional deconstruction of city rankings. Computers, Environment and Urban Systems, 2021, 89, 101687.	3.3	15
40	Evaluating the use of uncertainty visualization for exploratory analysis of land cover change: A qualitative expert user study. Computers and Geosciences, 2015, 84, 46-53.	2.0	14
41	Investigation on the separability of slums by multi-aspect TerraSAR-X dual-co-polarized high resolution spotlight images based on the multi-scale evaluation of local distributions. International Journal of Applied Earth Observation and Geoinformation, 2018, 64, 181-198.	1.4	14
42	Ich weiß, dass ich nichts weiß – Bevölkerungsschätzung in der Megacity Mumbai. , 2015, , 171-178.		14
43	Mapping urban villages using fully convolutional neural networks. Remote Sensing Letters, 2020, 11, 630-639.	0.6	12
44	Quantification of urban structure on building block level utilizing multisensoral remote sensing data. , 2010, , .		11
45	Analysis of Surface Thermal Patterns in Relation to Urban Structure Types: A Case Study for the City of Munich. Remote Sensing and Digital Image Processing, 2013, , 475-493.	0.7	11
46	Large-scale building extraction in very high-resolution aerial imagery using Mask R-CNN. , 2019, , .		11
47	Inferring floor area ratio thresholds for the delineation of city centers based on cognitive perception. Environment and Planning B: Urban Analytics and City Science, 2021, 48, 265-279.	1.0	11
48	Spatial factors influencing building age prediction and implications for urban residential energy modelling. Computers, Environment and Urban Systems, 2021, 88, 101637.	3.3	11
49	Exploitation of textural and morphological image features in Sentinel-2A data for slum mapping. , 2017, , .		10
50	Measuring the spatial hierarchical urban system in China in reference to the Central Place Theory. Habitat International, 2020, 105, 102264.	2.3	10
51	To be, or not to be "urban"? A multi-modal method for the differentiated measurement of the degree of urbanization. Computers, Environment and Urban Systems, 2022, 95, 101830.	3.3	10
52	Slum Mapping in Imbalanced Remote Sensing Datasets Using Transfer Learned Deep Features. , 2019, , .		9
53	How dynamic are slums? EO-based assessment of Kibera's morphologic transformation. , 2019, , .		8
54	The global urban footprint &#x2014; Processing status and cross comparison to existing human settlement products. , 2014, , .		7

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55	Derivation of population distribution for vulnerability assessment in flood-prone German cities using multisensoral remote sensing data. , 2009, , .		5
56	Spatial parameters for transportation: A multi-modal approach for modelling the urban spatial structure using deep learning and remote sensing. Journal of Transport and Land Use, 2021, 14, .	0.7	5
57	Estimating housing vacancy rates at block level: The example of Guiyang, China. Landscape and Urban Planning, 2022, 224, 104431.	3.4	5
58	Towards large-area morphologic characterization of urban environments using the TanDEM-X mission and Sentinel-2. , 2017, , .		4
59	Digital deserts on the ground and from space. , 2017, , .		4
60	Globale Urbanisierung â€œ Markenzeichen des 21. Jahrhunderts. , 2015, , 5-10.		4
61	Modelling the impact of the urban spatial structure on the choice of residential location using â€œbig earth dataâ€™ and machine learning. , 2019, , .		3
62	Sensitivity of slum size distributions as a function of spatial parameters for slum classification. , 2019, , .		3
63	Generation and webgis representation of landslide susceptibility maps using VHR satellite data. , 2007, , .		2
64	Vulnerability assessment towards tsunami threats using multisensoral remote sensing data. Proceedings of SPIE, 2009, , .	0.8	2
65	The global trend of urbanization: spatiotemporal analysis of megacities using multi-temporal remote sensing, landscape metrics, and gradient analysis. , 2010, , .		2
66	Land use modeling in North Rhine-Westphalia with interaction and scaling laws. , 2017, , .		2
67	Global Urbanizationâ€™Perspective from Space. , 2018, , 107-117.		2
68	Am Ende der Kernstadt â€œ ein Versuch der Abgrenzung des Physischen durch das Subjektive. , 2015, , 179-189.		2
69	Die globale Vielfalt urbaner Siedlungsmuster. , 2015, , 41-48.		2
70	Using Geographically Referenced Data on Environmental Exposures for Public Health Research: A Feasibility Study Based on the German Socio-Economic Panel Study (SOEP). SSRN Electronic Journal, 0, , .	0.4	2
71	Exploring the Linkage of Spatial Indicators from Remote Sensing Data with Survey Data â€œ The Case of the Socio-Economic Panel (SOEP) and 3D City Models. SSRN Electronic Journal, 0, , .	0.4	2
72	The â€œghost neighborhoodâ€™-phenomenon in Chinaâ€™ geographic locations and intra-urban spatial patterns. Environment and Planning B: Urban Analytics and City Science, 2022, 49, 2363-2377.	1.0	2

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73	Identification of built-up areas using SAR data: a comparison of TerraSAR-X and ALOS-PALSAR imagery. Proceedings of SPIE, 2008, , .	0.8	1
74	Changing urbanity in Istanbul. , 2009, , .		1
75	The changing face of urban growth: An analysis using earth observation data. , 2013, , .		1
76	disP Service. Disp, 2015, 51, 78-89.	0.8	1
77	Urban Morphology. An Introduction to the Study of the Physical Form of Cities. Raumforschung Und Raumordnung   Spatial Research and Planning, 2017, 75, 309-311.	1.5	1
78	Evaluation of clustering algorithms for unsupervised change detection in VHR remote sensing imagery. , 2017, , .		1
79	Urbane Strukturen der Macht. , 2015, , 93-105.		1
80	Zu Stein gewordene Philosophien â€“ die Morphologie geplanter Wohnviertel. , 2015, , 135-147.		1
81	Der Werkzeugkasten der urbanen Fernerkundung â€“ Daten und Produkte. , 2015, , 29-38.		1
82	Globale Urbanisierung â€“ Perspektive aus dem All: Der Versuch eines ResÃ¼mees. , 2015, , 289-291.		1
83	Comparison of selected impervious surface products derived from remote sensing data &#x2014; A case study for the city of Munich. , 2011, , .		0
84	At the edge of the city center. , 2015, , .		0
85	Size Distributions for Morphological Slums in Asia and South America. , 2019, , .		0
86	Is it Possible to Count the Earthâ€™s Population from Outer Space? (Menschen ZÃ¤hlen Aus Dem All) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.4	0
87	Die Morphologie deutscher GroÃŸstÃdte: Was die Dichte Ã¼ber die Struktur der StÃdte verrÃt. , 2015, , 127-133.		0
88	Motivation zu diesem Buch. , 2015, , 1-2.		0
89	Designing a Water Supply Network for Slums in Rio de Janeiro Using Mixed-Integer Programming. Operations Research Proceedings: Papers of the Annual Meeting = VortrÃge Der Jahrestagung / DGOR, 2019, , 347-354.	0.1	0
90	Deriving Urban Mass Concentrations Using TanDEM-X and Sentinel-2 Data for the Assessment of Morphological Polycentricity. , 2020, , .		0