

# Martino Pesaresi

## List of Publications by Year in descending order

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Version: 2024-02-01

97  
papers

5,683  
citations

109137

35  
h-index

114278

63  
g-index

100  
all docs

100  
docs citations

100  
times ranked

4502  
citing authors

#	ARTICLE	IF	CITATIONS
1	A crowdsourced global data set for validating built-up surface layers. <i>Scientific Data</i> , 2022, 9, 13.	2.4	13
2	Land use efficiency of functional urban areas: Global pattern and evolution of development trajectories. <i>Habitat International</i> , 2022, 123, 102543.	2.3	30
3	Applying the Degree of Urbanisation to the globe: A new harmonised definition reveals a different picture of global urbanisation. <i>Journal of Urban Economics</i> , 2021, 125, 103312.	2.4	99
4	Convolutional neural networks for global human settlements mapping from Sentinel-2 satellite imagery. <i>Neural Computing and Applications</i> , 2021, 33, 6697-6720.	3.2	72
5	Generalized Vertical Components of built-up areas from global Digital Elevation Models by multi-scale linear regression modelling. <i>PLoS ONE</i> , 2021, 16, e0244478.	1.1	15
6	Downscaling SSP-consistent global spatial urban land projections from 1/8-degree to 1-km resolution 2000â€“2100. <i>Scientific Data</i> , 2021, 8, 281.	2.4	15
7	Enhanced data and methods for improving open and free global population grids: putting â€œleaving no one behindâ€™ into practice. <i>International Journal of Digital Earth</i> , 2020, 13, 61-77.	1.6	42
8	The Generalised Settlement Area: mapping the Earth surface in the vicinity of built-up areas. <i>International Journal of Digital Earth</i> , 2020, 13, 45-60.	1.6	17
9	Mosaicking Copernicus Sentinel-1 Data at Global Scale. <i>IEEE Transactions on Big Data</i> , 2020, 6, 547-557.	4.4	7
10	Leveraging ALOS-2 PALSAR-2 for Mapping Built-Up Areas and Assessing Their Vertical Component. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2020, 13, 6473-6483.	2.3	2
11	Application of the Symbolic Machine Learning to Copernicus VHR Imagery: The European Settlement Map. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2020, 17, 1153-1157.	1.4	9
12	Big Earth Data science: an information framework for a sustainable planet. <i>International Journal of Digital Earth</i> , 2020, 13, 743-767.	1.6	76
13	A global cloud free pixel-based image composite from Sentinel-2 data. <i>Data in Brief</i> , 2020, 31, 105737.	0.5	34
14	Automated global delineation of human settlements from 40 years of Landsat satellite data archives. <i>Big Earth Data</i> , 2019, 3, 140-169.	2.0	106
15	Multi-Scale Estimation of Land Use Efficiency (SDG 11.3.1) across 25 Years Using Global Open and Free Data. <i>Sustainability</i> , 2019, 11, 5674.	1.6	57
16	An Improved Global Analysis of Population Distribution in Proximity to Active Volcanoes, 1975â€“2015. <i>ISPRS International Journal of Geo-Information</i> , 2019, 8, 341.	1.4	41
17	Principles and Applications of the Global Human Settlement Layer as Baseline for the Land Use Efficiency Indicatorâ€”SDG 11.3.1. <i>ISPRS International Journal of Geo-Information</i> , 2019, 8, 96.	1.4	92
18	The spatial allocation of population: a review of large-scale gridded population data products and their fitness for use. <i>Earth System Science Data</i> , 2019, 11, 1385-1409.	3.7	189

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19	WUDAPT: An Urban Weather, Climate, and Environmental Modeling Infrastructure for the Anthropocene. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, 1907-1924.	1.7	254
20	Estimation of Land Use Efficiency from the Global Human Settlement Layer (GHSL). , 2018, , 39-52.		4
21	Enhanced automatic detection of human settlements using Sentinel-1 interferometric coherence. <i>International Journal of Remote Sensing</i> , 2018, 39, 842-853.	1.3	25
22	Remote Sensing Derived Built-Up Area and Population Density to Quantify Global Exposure to Five Natural Hazards over Time. <i>Remote Sensing</i> , 2018, 10, 1378.	1.8	34
23	Comparison of built-up area maps produced within the global human settlement framework. <i>Transactions in GIS</i> , 2018, 22, 1406-1436.	1.0	18
24	Built-up area and population density: Two Essential Societal Variables to address climate hazard impact. <i>Environmental Science and Policy</i> , 2018, 90, 73-82.	2.4	48
25	Unveiling 25 Years of Planetary Urbanization with Remote Sensing: Perspectives from the Global Human Settlement Layer. <i>Remote Sensing</i> , 2018, 10, 768.	1.8	119
26	Big earth data analytics on Sentinel-1 and Landsat imagery in support to global human settlements mapping. <i>Big Earth Data</i> , 2017, 1, 118-144.	2.0	96
27	Assessing Spatiotemporal Agreement between Multi-Temporal Built-up Land Layers and Integrated Cadastral and Building Data. <i>International Conference on GIScience Short Paper Proceedings</i> , 2016, 1, .	0.0	2
28	An Efficient Parallel Algorithm for Multi-Scale Analysis of Connected Components in Gigapixel Images. <i>ISPRS International Journal of Geo-Information</i> , 2016, 5, 22.	1.4	7
29	A New Method for Earth Observation Data Analytics Based on Symbolic Machine Learning. <i>Remote Sensing</i> , 2016, 8, 399.	1.8	49
30	Assessment of the Added-Value of Sentinel-2 for Detecting Built-up Areas. <i>Remote Sensing</i> , 2016, 8, 299.	1.8	145
31	Urbanization and forest degradation in east Africa - a case study around Dar es Salaam, Tanzania. , 2016, , .		6
32	The global human settlement layer from landsat imagery. , 2016, , .		40
33	A New European Settlement Map From Optical Remotely Sensed Data. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2016, 9, 1978-1992.	2.3	45
34	Remote sensing derived continental high resolution built-up and population geoinformation for crisis management. , 2015, , .		4
35	Image Enhancement and Feature Extraction Based on Low-Resolution Satellite Data. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2015, 8, 1986-1995.	2.3	23
36	Combining GHSL and GPW to improve global population mapping. , 2015, , .		19

#	ARTICLE	IF	CITATIONS
37	Remote sensing derived datasets supporting disaster alert systems on multiscales via web services. , 2015, , .		1
38	A new map of the European settlements by automatic classification of 2.5m resolution SPOT data. , 2014, , .		6
39	Texture based built-up area extraction from Zi Yuan and spot imagery. , 2014, , .		1
40	Monitoring bidecadal development of urban agglomeration with remote sensing images in the Jing-Jin-Tang area, China. Journal of Applied Remote Sensing, 2014, 8, 084592.	0.6	8
41	Multiscale quality assessment of Global Human Settlement Layer scenes against reference data using statistical learning. Pattern Recognition Letters, 2013, 34, 1636-1647.	2.6	68
42	Urbanization Detection by a Region Based Mixed Information Change Analysis Between Built-Up Indicators. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 2410-2420.	2.3	12
43	A Global Human Settlement Layer From Optical HR/VHR RS Data: Concept and First Results. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 2102-2131.	2.3	338
44	On the assessment of automatically processing HR/VHR imagery using low-resolution global reference data. , 2013, , .		3
45	Automatic recognition of built-up areas in China using CBERS-2B HR data. , 2013, , .		0
46	On the feasibility to map the settlements of Brazil with the CBERS-2B satellite. , 2013, , .		3
47	Digital Earth 2020: towards the vision for the next decade. International Journal of Digital Earth, 2012, 5, 4-21.	1.6	238
48	A new built-up presence index based on density of corners. , 2012, , .		8
49	Differential Area Profiles: Decomposition Properties and Efficient Computation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2012, 34, 1533-1548.	9.7	42
50	A new compact representation of morphological profiles: report on first massive VHR image processing at the JRC. , 2012, , .		15
51	Rapid Damage Assessment of Buildings with VHR Optical Airborne Images in Yushu Earthquake. , 2012, , .		5
52	Urban expansion detection with SPOT5 panchromatic images using textural features and PCA. , 2012, , .		2
53	Classification of CBERS-02B high resolution image using morphological features for urban areas. , 2012, , .		0
54	Next-generation Digital Earth. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11088-11094.	3.3	264

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55	Characterizing and Counting Roofless Buildings in Very High Resolution Optical Images. IEEE Geoscience and Remote Sensing Letters, 2012, 9, 114-118.	1.4	12
56	Statistical analysis of anisotropic rotation-invariant textural measurements of human settlements from multitemporal SAR data. , 2011, , .		6
57	Quantitative estimation of settlement density and limits based on textural measurements. , 2011, , .		8
58	Urbanization analysis by mutual information based change detection between SPOT 5 panchromatic images. , 2011, , .		3
59	Change Detection Based on Information Measure. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4503-4515.	2.7	56
60	Multi scale Harris corner detector based on Differential Morphological Decomposition. Pattern Recognition Letters, 2011, 32, 1714-1719.	2.6	35
61	Improved Textural Built-Up Presence Index for Automatic Recognition of Human Settlements in Arid Regions With Scattered Vegetation. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2011, 4, 16-26.	2.3	60
62	Enumeration of Dwellings in Darfur Camps From GeoEye-1 Satellite Images Using Mathematical Morphology. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2011, 4, 8-15.	2.3	38
63	Toward Global Automatic Built-Up Area Recognition Using Optical VHR Imagery. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2011, 4, 923-934.	2.3	65
64	Validation of EO-derived information for crisis management: a Digital Earth perspective in the VALgEO expert community. International Journal of Digital Earth, 2011, 4, 1-7.	1.6	2
65	Concurrent Computation of Differential Morphological Profiles on Giga-Pixel Images. Lecture Notes in Computer Science, 2011, , 331-342.	1.0	5
66	An interactive image mining tool handling gigapixel images. , 2011, , .		7
67	Quantifying the building stock from optical high-resolution satellite imagery for assessing disaster risk. Geocarto International, 2010, 25, 281-293.	1.7	21
68	Automatic information retrieval from meter and sub-meter resolution satellite image data in support to crisis management. , 2010, , .		5
69	Differential Morphological Decomposition Segmentation: A Multi-Scale Object Based Image Description. , 2010, , .		5
70	Performance measures for object detection evaluation. Pattern Recognition Letters, 2010, 31, 1128-1137.	2.6	39
71	Post-Event Damage Assessment Using Morphological Methodology on 0.5m Resolution Satellite Data. European Journal of Remote Sensing, 2010, , 37-47.	0.2	4
72	Morphological image filtering for improvement of textural built-up index performances in case of presence of scattered vegetation in semi-desertic areas. , 2009, , .		2

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73	Identifying damage caused by the 2008 Wenchuan earthquake from VHR remote sensing data. International Journal of Digital Earth, 2009, 2, 309-326.	1.6	78
74	An improved automatic detection method for earthquake-collapsed buildings from ADS40 image. Science Bulletin, 2009, 54, 3303-3307.	1.7	20
75	Systematic Study of the Urban Postconflict Change Classification Performance Using Spectral and Structural Features in a Support Vector Machine. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2008, 1, 120-128.	2.3	42
76	A Robust Built-Up Area Presence Index by Anisotropic Rotation-Invariant Textural Measure. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2008, 1, 180-192.	2.3	256
77	Anisotropic Rotation Invariant Built-Up Presence Index: Applications to SAR Data. , 2008, , .		12
78	Development of an object-oriented classification model using very high resolution satellite imagery for monitoring diamond mining activity. International Journal of Remote Sensing, 2008, 29, 499-512.	1.3	14
79	Textural analysis of coca plantations using remotely sensed data with resolution of 1 metre. International Journal of Remote Sensing, 2008, 29, 6985-7002.	1.3	6
80	Estimating the velocity and direction of moving targets using a single optical VHR satellite sensor image. International Journal of Remote Sensing, 2008, 29, 1221-1228.	1.3	18
81	The GMOSS experience. , 2008, , .		0
82	Post-conflict reconstruction assessment using image morphological profile and fuzzy multicriteria approach on 1-m- resolution satellite data; Application test on the Koidu village in Sierra Leone, Africa. , 2007, , .		4
83	Monitoring settlement dynamics by anisotropic textural analysis of panchromatic VHR data. , 2007, , .		14
84	Rapid damage assessment of built-up structures using VHR satellite data in tsunami-affected areas. International Journal of Remote Sensing, 2007, 28, 3013-3036.	1.3	71
85	The recognition of road network from high-resolution satellite remotely sensed data using image morphological characteristics. International Journal of Remote Sensing, 2005, 26, 5493-5508.	1.3	71
86	Classification and feature extraction for remote sensing images from urban areas based on morphological transformations. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 1940-1949.	2.7	642
87	Image Segmentation Based on the Derivative of the Morphological Profile. , 2002, , 179-188.		7
88	Advances in mathematical morphology applied to geoscience and remote sensing. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 2042-2055.	2.7	267
89	A new approach for the morphological segmentation of high-resolution satellite imagery. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 309-320.	2.7	715
90	Texture Analysis for Urban Pattern Recognition Using Fine-resolution Panchromatic Satellite Imagery. Geographical and Environmental Modelling, 2000, 4, 43-63.	0.7	83

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91	Textural classification of very high-resolution satellite imagery: Empirical estimation of the interaction between window size and detection accuracy in urban environment. , 0, , .		12
92	The use of morphological profiles in classification of data from urban areas. , 0, , .		12
93	First extensive and cost-effective quality check of Crisis Maps: presentation of assessment parameters and results. International Journal of Digital Earth, 0, , 1-17.	1.6	2
94	Recognizing Settlement Structure using Mathematical Morphology and Image Texture. , 0, , 55-68.		20
95	Towards an automated monitoring of human settlements in South Africa using high resolution SPOT satellite imagery. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XL-7/W3, 1389-1394.	0.2	9
96	Global Human Settlement Analysis for Disaster Risk Reduction. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XL-7/W3, 837-843.	0.2	27
97	TOWARDS CONSISTENT MAPPING OF URBAN STRUCTURES “ GLOBAL HUMAN SETTLEMENT LAYER AND LOCAL CLIMATE ZONES. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B8, 1371-1378.	0.2	17