

Robert Weibel

List of Publications by Year in descending order

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Version: 2024-02-01

91
papers

2,928
citations

201575

27
h-index

189801

50
g-index

95
all docs

95
docs citations

95
times ranked

2483
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards a taxonomy of movement patterns. <i>Information Visualization</i> , 2008, 7, 240-252.	1.2	268
2	A review and conceptual framework of automated map generalization. <i>International Journal of Geographical Information Science</i> , 1988, 2, 229-244.	2.2	216
3	Discovering relative motion patterns in groups of moving point objects. <i>International Journal of Geographical Information Science</i> , 2005, 19, 639-668.	2.2	209
4	Revealing the physics of movement: Comparing the similarity of movement characteristics of different types of moving objects. <i>Computers, Environment and Urban Systems</i> , 2009, 33, 419-434.	3.3	153
5	Analysis and visualisation of movement: an interdisciplinary review. <i>Movement Ecology</i> , 2015, 3, 5.	1.3	118
6	Movement similarity assessment using symbolic representation of trajectories. <i>International Journal of Geographical Information Science</i> , 2012, 26, 1563-1588.	2.2	109
7	Transport mode detection based on mobile phone network data: A systematic review. <i>Transportation Research Part C: Emerging Technologies</i> , 2019, 101, 297-312.	3.9	106
8	A Conceptual Framework for Uncertainty Investigation in Map-based Land Cover Change Modelling. <i>Transactions in GIS</i> , 2005, 9, 291-322.	1.0	80
9	An algorithm for point cluster generalization based on the Voronoi diagram. <i>Computers and Geosciences</i> , 2008, 34, 939-954.	2.0	65
10	Analysis of movement data. <i>International Journal of Geographical Information Science</i> , 2016, 30, 825-834.	2.2	63
11	A generic regional spatio-temporal co-occurrence pattern mining model: a case study for air pollution. <i>Journal of Geographical Systems</i> , 2015, 17, 249-274.	1.9	59
12	Integrating ontological modelling and Bayesian inference for pattern classification in topographic vector data. <i>Computers, Environment and Urban Systems</i> , 2009, 33, 363-374.	3.3	57
13	Saliency and semantic processing: Extracting forest cover from historical topographic maps. <i>Pattern Recognition</i> , 2006, 39, 953-968.	5.1	56
14	A Multi-parameter Approach to Automated Building Grouping and Generalization. <i>GeoInformatica</i> , 2008, 12, 73-89.	2.0	54
15	Towards a comprehensive set of GPS-based indicators reflecting the multidimensional nature of daily mobility for applications in health and aging research. <i>International Journal of Health Geographics</i> , 2019, 18, 17.	1.2	51
16	Building displacement over a ductile truss. <i>International Journal of Geographical Information Science</i> , 2005, 19, 915-936.	2.2	49
17	Efficient transmission of vector data over the Internet. <i>International Journal of Geographical Information Science</i> , 2007, 21, 215-237.	2.2	49
18	Relations among Map Objects in Cartographic Generalization. <i>Cartography and Geographic Information Science</i> , 2007, 34, 175-197.	1.4	49

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19	Modelling the Overall Process of Generalisation. , 2007, , 67-87.		48
20	Inferring fine-grained transport modes from mobile phone cellular signaling data. Computers, Environment and Urban Systems, 2019, 77, 101348.	3.3	43
21	Computational Perspectives on Map Generalization. Geoinformatica, 1998, 2, 307-314.	2.0	42
22	From A to B, randomly: a point-to-point random trajectory generator for animal movement. International Journal of Geographical Information Science, 2015, 29, 912-934.	2.2	42
23	Real-time generalization of point data in mobile and web mapping using quadtrees. Cartography and Geographic Information Science, 2013, 40, 271-281.	1.4	40
24	Exploiting empirical knowledge for automatic delineation of city centres from large-scale topographic databases. Computers, Environment and Urban Systems, 2013, 37, 18-34.	3.3	39
25	Multimodal Route Planning With Public Transport and Carpooling. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 3513-3525.	4.7	37
26	Overcoming the knowledge acquisition bottleneck in map generalization: The role of interactive systems and computational intelligence. Lecture Notes in Computer Science, 1995, , 139-156.	1.0	37
27	Spatial similarities between European agroforestry systems and ecosystem services at the landscape scale. Agroforestry Systems, 2018, 92, 1075-1089.	0.9	35
28	Travelers or locals? Identifying meaningful sub-populations from human movement data in the absence of ground truth. EPJ Data Science, 2018, 7, .	1.5	32
29	Self-reported versus GPS-derived indicators of daily mobility in a sample of healthy older adults. Social Science and Medicine, 2019, 220, 193-202.	1.8	29
30	Using Accelerometer and GPS Data for Real-Life Physical Activity Type Detection. Sensors, 2020, 20, 588.	2.1	28
31	Assessing Older Adultsâ€™ Daily Mobility: A Comparison of GPS-Derived and Self-Reported Mobility Indicators. Sensors, 2019, 19, 4551.	2.1	26
32	Web service approaches for providing enriched data structures to generalisation operators. International Journal of Geographical Information Science, 2008, 22, 133-165.	2.2	24
33	Moving ahead with computational movement analysis. International Journal of Geographical Information Science, 2018, 32, 1275-1281.	2.2	24
34	Road network selection for medium scales using an extended stroke-mesh combination algorithm. Cartography and Geographic Information Science, 2014, 41, 323-339.	1.4	23
35	Predictors of real-life mobility in community-dwelling older adults: an exploration based on a comprehensive framework for analyzing mobility. European Review of Aging and Physical Activity, 2019, 16, 19.	1.3	23
36	Multi-representation Databases with Explicitly Modeled Horizontal, Vertical, and Update Relations. Cartography and Geographic Information Science, 2008, 35, 3-16.	1.4	22

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37	Landscape-scale modelling of agroforestry ecosystems services in Swiss orchards: a methodological approach. <i>Landscape Ecology</i> , 2018, 33, 1633-1644.	1.9	22
38	Improving settlement selection for small-scale maps using data enrichment and machine learning. <i>Cartography and Geographic Information Science</i> , 2018, 45, 111-127.	1.4	21
39	Progress in computational movement analysis “ towards movement data science. <i>International Journal of Geographical Information Science</i> , 2020, 34, 2395-2400.	2.2	21
40	Automated processing for map generalization using web services. <i>Geoinformatica</i> , 2009, 13, 425-452.	2.0	20
41	Environmental factors drive language density more in food-producing than in hunter-gatherer populations. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2018, 285, 20172851.	1.2	19
42	On the requirements on spatial accuracy and sampling rate for transport mode detection in view of a shift to passive signalling data. <i>Transportation Research Part C: Emerging Technologies</i> , 2020, 114, 99-117.	3.9	19
43	Utilising urban context recognition and machine learning to improve the generalisation of buildings. <i>International Journal of Geographical Information Science</i> , 2010, 24, 253-282.	2.2	18
44	Exploring global and local patterns in the correlation of geographic distances and morphosyntactic variation in Swiss German. <i>Journal of Linguistic Geography</i> , 2017, 5, 86-108.	0.6	17
45	The Key Factors in Physical Activity Type Detection Using Real-Life Data: A Systematic Review. <i>Frontiers in Physiology</i> , 2019, 10, 75.	1.3	17
46	Where is the Terraced House? On the Use of Ontologies for Recognition of Urban Concepts in Cartographic Databases. <i>Lecture Notes in Geoinformation and Cartography</i> , 2008, , 449-466.	0.5	16
47	Improvement of GIS graphics for analysis and decision-making. <i>International Journal of Geographical Information Science</i> , 1992, 6, 223-245.	2.2	15
48	Integrating animal movement with habitat suitability for estimating dynamic migratory connectivity. <i>Landscape Ecology</i> , 2018, 33, 879-893.	1.9	15
49	MOBility assessment with modern TEChnology in older patients’s real-life by the General Practitioner: the MOBITEC-GP study protocol. <i>BMC Public Health</i> , 2019, 19, 1703.	1.2	15
50	Using an Energy Minimization Technique for Polygon Generalization. <i>Cartography and Geographic Information Science</i> , 2003, 30, 263-279.	1.4	14
51	Extracting regular mobility patterns from sparse CDR data without <i>a priori</i> assumptions. <i>Journal of Location Based Services</i> , 2017, 11, 78-97.	1.4	14
52	Value of incorporating geospatial information into the prediction of on-street parking occupancy “ A case study. <i>Geo-Spatial Information Science</i> , 2021, 24, 438-457.	2.4	14
53	Predicting individuals’ car accident risk by trajectory, driving events, and geographical context. <i>Computers, Environment and Urban Systems</i> , 2022, 93, 101760.	3.3	14
54	Variable-resolution Compression of Vector Data. <i>Geoinformatica</i> , 2008, 12, 357-376.	2.0	13

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55	Characterizing change points and continuous transitions in movement behaviours using wavelet decomposition. <i>Methods in Ecology and Evolution</i> , 2017, 8, 1113-1123.	2.2	12
56	Recovery of mobility function and life-space mobility after ischemic stroke: the MOBITEC-Stroke study protocol. <i>BMC Neurology</i> , 2020, 20, 348.	0.8	11
57	Adaptive simplification of GPS trajectories with geographic context – a quadtree-based approach. <i>International Journal of Geographical Information Science</i> , 2021, 35, 661-688.	2.2	11
58	Editorial: Some thoughts on progressive transmission of spatial datasets in the web environment. <i>Computers and Geosciences</i> , 2009, 35, 2175-2176.	2.0	10
59	Geographic Data Science. <i>IEEE Computer Graphics and Applications</i> , 2017, 37, 15-17.	1.0	10
60	Map-based assessment of older adults' life space: validity and reliability. <i>European Review of Aging and Physical Activity</i> , 2020, 17, 21.	1.3	10
61	Exploring movement-similarity analysis of moving objects. <i>SIGSPATIAL Special</i> , 2009, 1, 11-16.	2.5	9
62	Semantic Activity Analytics for Healthy Aging: Challenges and Opportunities. <i>IEEE Pervasive Computing</i> , 2018, 17, 73-77.	1.1	9
63	Can Bayesian phylogeography reconstruct migrations and expansions in linguistic evolution?. <i>Royal Society Open Science</i> , 2021, 8, 201079.	1.1	9
64	Contact-tracing in cultural evolution: a Bayesian mixture model to detect geographic areas of language contact. <i>Journal of the Royal Society Interface</i> , 2021, 18, 20201031.	1.5	9
65	Detecting contact in language trees: a Bayesian phylogenetic model with horizontal transfer. <i>Humanities and Social Sciences Communications</i> , 2022, 9, .	1.3	9
66	Developing and Integrating Advanced Movement Features Improves Automated Classification of Ciliate Species. <i>PLoS ONE</i> , 2015, 10, e0145345.	1.1	8
67	A feature extraction based trajectory segmentation approach based on multiple movement parameters. <i>Engineering Applications of Artificial Intelligence</i> , 2020, 88, 103394.	4.3	8
68	HiVG: A hierarchical indoor visibility-based graph for navigation guidance in multi-storey buildings. <i>Computers, Environment and Urban Systems</i> , 2022, 93, 101751.	3.3	8
69	Methods for visualizing the explosive remnants of war. <i>Applied Geography</i> , 2013, 41, 179-194.	1.7	7
70	Home ranges of lions in the Kalahari, Botswana exhibit vast sizes and high temporal variability. <i>Zoology</i> , 2018, 128, 46-54.	0.6	7
71	Choose your own route – supporting pedestrian navigation without restricting the user to a predefined route. <i>Cartography and Geographical Information Science</i> , 2022, 49, 95-114.	1.4	7
72	Dynamic optimization models for displaying outdoor advertisement at the right time and place. <i>International Journal of Geographical Information Science</i> , 2021, 35, 1179-1204.	2.2	6

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73	IPODLAS – A software architecture for coupling temporal simulation systems, VR, and GIS. ISPRS Journal of Photogrammetry and Remote Sensing, 2005, 60, 34-47.	4.9	5
74	Comparing multi - criteria evaluation and participatory mapping to projecting land use. Landscape and Urban Planning, 2018, 176, 38-50.	3.4	5
75	MOBILITY, PHYSICAL ACTIVITY AND SOCIAL INTERACTIONS IN THE DAILY LIVES OF HEALTHY OLDER ADULTS: THE MOASIS PROJECT. Innovation in Aging, 2018, 2, 274-274.	0.0	5
76	Dialect borders – political regions are better predictors than economy or religion. Digital Scholarship in the Humanities, 2020, 35, 276-295.	0.4	5
77	Geological Map Generalization Driven by Size Constraints. ISPRS International Journal of Geo-Information, 2020, 9, 284.	1.4	5
78	Familiarity-dependent computational modelling of indoor landmark selection for route communication: a ranking approach. International Journal of Geographical Information Science, 2022, 36, 514-546.	2.2	5
79	Variable-scale maps in real-time generalisation using a quadtree data structure and space deforming algorithms. International Journal of Cartography, 2017, 3, 134-147.	0.2	4
80	A gradient perspective on modeling interdialectal transitions. Journal of Linguistic Geography, 2018, 6, 78-99.	0.6	4
81	Recognition of group patterns in geological maps by building similarity networks. Geocarto International, 2022, 37, 607-626.	1.7	4
82	Indoor landmark selection for route communication: the influence of route-givers' social roles and receivers' familiarity with the environment. Spatial Cognition and Computation, 2021, 21, 257-289.	0.6	4
83	Towards a Framework for Assessing Daily Mobility Using GPS Data. GI_Forum, 0, 1, 177-186.	0.2	4
84	Exploring and Visualizing Differences in Geographic and Linguistic Web Coverage. Transactions in GIS, 2014, 18, 852-876.	1.0	2
85	Introduction to the special section on Visual Movement Analytics. Information Visualization, 2019, 18, 133-137.	1.2	2
86	Exploring the Role of Mobility and Personality for Healthy Aging. International Perspectives on Aging, 2020, , 133-153.	0.2	1
87	Verarbeitung und Anwendung digitaler Geländemodelle im Bereich der Geographie. Geographica Helvetica, 1990, 45, 145-153.	0.4	1
88	The Earth in accelerated change : habitats in the 21 st century : divergence and convergence in geography – approaches and perspectives at the Department of Geography, University of Zurich. Geographica Helvetica, 2003, 58, 184-196.	0.4	1
89	Eigenbehaviour as an Indicator of Cognitive Abilities. Sensors, 2022, 22, 2769.	2.1	1
90	Assessing the Transferability of Physical Activity Type Detection Models: Influence of Age Group Is Underappreciated. Frontiers in Physiology, 2021, 12, 738939.	1.3	0

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91	Journeys of discovery : from paper maps to explorative multimedia cartographic visualization : recent development in Swiss cartography. <i>Geographica Helvetica</i> , 2003, 58, 274-282.	0.4	0