

# Tzai-Hung Wen

## List of Publications by Year in descending order

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72  
papers

1,361  
citations

361413

20  
h-index

395702

33  
g-index

74  
all docs

74  
docs citations

74  
times ranked

1828  
citing authors

#	ARTICLE	IF	CITATIONS
1	Using Geographically Weighted Regression (GWR) to Explore Spatial Varying Relationships of Immature Mosquitoes and Human Densities with the Incidence of Dengue. <i>International Journal of Environmental Research and Public Health</i> , 2011, 8, 2798-2815.	2.6	127
2	The Role of Imported Cases and Favorable Meteorological Conditions in the Onset of Dengue Epidemics. <i>PLoS Neglected Tropical Diseases</i> , 2010, 4, e775.	3.0	86
3	Spatial mapping of temporal risk characteristics to improve environmental health risk identification: A case study of a dengue epidemic in Taiwan. <i>Science of the Total Environment</i> , 2006, 367, 631-640.	8.0	66
4	The effects of border control and quarantine measures on the spread of COVID-19. <i>Epidemics</i> , 2020, 32, 100397.	3.0	64
5	Two Clustering Diffusion Patterns Identified from the 2001–2003 Dengue Epidemic, Kaohsiung, Taiwan. <i>American Journal of Tropical Medicine and Hygiene</i> , 2008, 79, 344-352.	1.4	54
6	An Air Quality Monitoring System for Urban Areas Based on the Technology of Wireless Sensor Networks. <i>International Journal on Smart Sensing and Intelligent Systems</i> , 2012, 5, 191-214.	0.7	48
7	Population Movement and Vector-Borne Disease Transmission: Differentiating Spatial–Temporal Diffusion Patterns of Commuting and Noncommuting Dengue Cases. <i>Annals of the American Association of Geographers</i> , 2012, 102, 1026-1037.	3.0	45
8	Spatial–temporal patterns of dengue in areas at risk of dengue hemorrhagic fever in Kaohsiung, Taiwan, 2002. <i>International Journal of Infectious Diseases</i> , 2010, 14, e334-e343.	3.3	42
9	Identifying geographical variations in poverty-obesity relationships: empirical evidence from Taiwan. <i>Geospatial Health</i> , 2010, 4, 257.	0.8	40
10	The effects of seasonal climate variability on dengue annual incidence in Hong Kong: A modelling study. <i>Scientific Reports</i> , 2020, 10, 4297.	3.3	39
11	Geographically Modified PageRank Algorithms: Identifying the Spatial Concentration of Human Movement in a Geospatial Network. <i>PLoS ONE</i> , 2015, 10, e0139509.	2.5	36
12	A computer virus spreading model based on resource limitations and interaction costs. <i>Journal of Systems and Software</i> , 2013, 86, 801-808.	4.5	34
13	Understanding the topological characteristics and flow complexity of urban traffic congestion. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2017, 473, 166-177.	2.6	34
14	A Dengue Vector Surveillance by Human Population-Stratified Ovitrap Survey for <i>Aedes</i> (Diptera: Culicidae) Adult and Egg Collections in High Dengue-Risk Areas of Taiwan. <i>Journal of Medical Entomology</i> , 2013, 50, 261-269.	1.8	32
15	Developed urban air quality monitoring system based on wireless sensor networks. , 2011, , .		30
16	Incorporating the human-Aedes mosquito interactions into measuring the spatial risk of urban dengue fever. <i>Applied Geography</i> , 2015, 62, 256-266.	3.7	30
17	Association between the First Occurrence of Asthma and Residential Greenness in Children and Teenagers in Taiwan. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 2076.	2.6	27
18	Two clustering diffusion patterns identified from the 2001-2003 dengue epidemic, Kaohsiung, Taiwan. <i>American Journal of Tropical Medicine and Hygiene</i> , 2008, 79, 344-52.	1.4	27

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19	Optimizing locations for the installation of automated external defibrillators (AEDs) in urban public streets through the use of spatial and temporal weighting schemes. <i>Applied Geography</i> , 2012, 35, 394-404.	3.7	26
20	Spatially Adjusted Time-varying Reproductive Numbers: Understanding the Geographical Expansion of Urban Dengue Outbreaks. <i>Scientific Reports</i> , 2019, 9, 19172.	3.3	24
21	Optimal Installation Locations for Automated External Defibrillators in Taipei 7-Eleven Stores: Using GIS and a Genetic Algorithm with a New Stirring Operator. <i>Computational and Mathematical Methods in Medicine</i> , 2014, 2014, 1-12.	1.3	22
22	Prediction of annual dengue incidence by hydro-climatic extremes for southern Taiwan. <i>International Journal of Biometeorology</i> , 2019, 63, 259-268.	3.0	22
23	Socio-spatial patterns of neighborhood effects on adult obesity in Taiwan: A multi-level model. <i>Social Science and Medicine</i> , 2010, 70, 823-833.	3.8	21
24	Inter- and intra-host sequence diversity reveal the emergence of viral variants during an overwintering epidemic caused by dengue virus serotype 2 in southern Taiwan. <i>PLoS Neglected Tropical Diseases</i> , 2018, 12, e0006827.	3.0	19
25	GIS-based biomass resource utilization for rice straw cofiring in the Taiwanese power market. <i>Energy</i> , 2013, 55, 354-360.	8.8	18
26	Extracting urban water bodies from high-resolution radar images: Measuring the urban surface morphology to control for radar's double-bounce effect. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2020, 85, 102003.	2.8	18
27	A Novel Private Attitude and Public Opinion Dynamics Model for Simulating Pluralistic Ignorance and Minority Influence. <i>Jasss</i> , 2014, 17, .	1.8	18
28	Characterizing Diffusion Dynamics of Disease Clustering: A Modified Space-Time DBSCAN (MST-DBSCAN) Algorithm. <i>Annals of the American Association of Geographers</i> , 2018, 108, 1168-1186.	2.2	17
29	Elucidating the changing socio-spatial dynamics of neighborhood effects on adult obesity risk in Taiwan from 2001 to 2005. <i>Health and Place</i> , 2010, 16, 1248-1258.	3.3	15
30	Spatial Dependency of Tuberculosis Incidence in Taiwan. <i>PLoS ONE</i> , 2012, 7, e50740.	2.5	15
31	Monitoring Street-Level Spatial-Temporal Variations of Carbon Monoxide in Urban Settings Using a Wireless Sensor Network (WSN) Framework. <i>International Journal of Environmental Research and Public Health</i> , 2013, 10, 6380-6396.	2.6	15
32	A Probabilistic Spatial Dengue Fever Risk Assessment by a Threshold-Based-Quantile Regression Method. <i>PLoS ONE</i> , 2014, 9, e106334.	2.5	15
33	Indigenous Wildlife Rabies in Taiwan: Ferret Badgers, a Long Term Terrestrial Reservoir. <i>BioMed Research International</i> , 2017, 2017, 1-6.	1.9	14
34	EpiRank: Modeling Bidirectional Disease Spread in Asymmetric Commuting Networks. <i>Scientific Reports</i> , 2019, 9, 5415.	3.3	14
35	Integrating epidemic dynamics with daily commuting networks: building a multilayer framework to assess influenza A (H1N1) intervention policies. <i>Simulation</i> , 2011, 87, 385-405.	1.8	13
36	The spatio-temporal characteristics of potential dengue risk assessed by <i>Aedes aegypti</i> and <i>Aedes albopictus</i> in high-epidemic areas. <i>Stochastic Environmental Research and Risk Assessment</i> , 2016, 30, 2057-2066.	4.0	13

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37	The effect of preventing subclinical transmission on the containment of COVID-19: Mathematical modeling and experience in Taiwan. <i>Contemporary Clinical Trials</i> , 2020, 96, 106101.	1.8	12
38	A Network-based Simulation Architecture for Studying Epidemic Dynamics. <i>Simulation</i> , 2010, 86, 351-368.	1.8	11
39	Analysis of biomass co-firing systems in Taiwan power markets using linear complementarity models. <i>Energy Policy</i> , 2011, 39, 4594-4600.	8.8	10
40	Evaluating the role of disease importation in the spatiotemporal transmission of indigenous dengue outbreak. <i>Applied Geography</i> , 2016, 76, 137-146.	3.7	10
41	Evaluating neighborhood structures for modeling intercity diffusion of large-scale dengue epidemics. <i>International Journal of Health Geographics</i> , 2018, 17, 9.	2.5	10
42	Identifying low-PM2.5 exposure commuting routes for cyclists through modeling with the random forest algorithm based on low-cost sensor measurements in three Asian cities. <i>Environmental Pollution</i> , 2022, 294, 118597.	7.5	10
43	Delayed Treatment of Diagnosed Pulmonary Tuberculosis in Taiwan. <i>BMC Public Health</i> , 2008, 8, 236.	2.9	9
44	Revisiting the role of rainfall variability and its interactive effects with the built environment in urban dengue outbreaks. <i>Applied Geography</i> , 2018, 101, 14-22.	3.7	9
45	The impact of the COVID-19 pandemic on O-D flow and airport networks in the origin country and in Northeast Asia. <i>Journal of Air Transport Management</i> , 2022, 100, 102192.	4.5	9
46	Temporal changes in geographical disparities in alcohol-attributed disease mortality before and after implementation of the alcohol tax policy in Taiwan. <i>BMC Public Health</i> , 2012, 12, 889.	2.9	8
47	Real-time dengue forecast for outbreak alerts in Southern Taiwan. <i>PLoS Neglected Tropical Diseases</i> , 2020, 14, e0008434.	3.0	8
48	A geo-computational algorithm for exploring the structure of diffusion progression in time and space. <i>Scientific Reports</i> , 2017, 7, 12565.	3.3	7
49	FLUed: A Novel Four-Layer Model for Simulating Epidemic Dynamics and Assessing Intervention Policies. <i>Journal of Applied Mathematics</i> , 2013, 2013, 1-20.	0.9	6
50	Prevalence of antibodies against Ehrlichia spp. and Orientia tsutsugamushi in small mammals around harbors in Taiwan. <i>Parasites and Vectors</i> , 2016, 9, 45.	2.5	6
51	An Alternative Body Temperature Measurement Solution: Combination of a Highly Accurate Monitoring System and a Visualized Public Health Cloud Platform. <i>IEEE Internet of Things Journal</i> , 2021, 8, 5778-5793.	8.7	6
52	Application of a reliable MAC protocol for the urban air quality monitoring system based on the wireless sensor network. , 2012, , .		5
53	A GIS-based framework of regional irrigation water demand assessment. <i>Paddy and Water Environment</i> , 2004, 2, 33-39.	1.8	4
54	Differentiating geographic patterns of human immunodeficiency virus (HIV) infection with different risk factors in northern Taiwan: 1997-2008. <i>Applied Geography</i> , 2011, 31, 519-524.	3.7	4

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55	Incorporation of Spatial Interactions in Location Networks to Identify Critical Geo-Referenced Routes for Assessing Disease Control Measures on a Large-Scale Campus. <i>International Journal of Environmental Research and Public Health</i> , 2015, 12, 4170-4184.	2.6	4
56	A Location-Based Client-Server Framework for Assessing Personal Exposure to the Transmission Risks of Contagious Diseases. <i>Human Dynamics in Smart Cities</i> , 2018, , 133-148.	0.2	4
57	Mobile Measurement of Particulate Matter Concentrations on Urban Streets: System Development and Field Verification. <i>IEEE Access</i> , 2020, 8, 197617-197629.	4.2	4
58	Regionalization for infection control: An algorithm for delineating containment zones considering the regularity of human mobility. <i>Applied Geography</i> , 2021, 126, 102375.	3.7	4
59	Analysis of Spatial Scenarios Aiding Decision Making for Regional Irrigation Water-Demand Planning. <i>Journal of Irrigation and Drainage Engineering - ASCE</i> , 2007, 133, 455-467.	1.0	3
60	A spatial aggregation index for effective fallow decision in paddy irrigation demand planning. <i>Paddy and Water Environment</i> , 2012, 10, 31-39.	1.8	3
61	Revisiting the Effects of High-Speed Railway Transfers in the Early COVID-19 Cross-Province Transmission in Mainland China. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 6394.	2.6	3
62	Urban Area PM <sub>2.5</sub> ; Prediction with Machine Methods: An On-Board Monitoring System. , 2018, , .		2
63	A Mathematical Model for Evaluating the Medical Resource Availability of COVID-19 in Time and Space. <i>Human Dynamics in Smart Cities</i> , 2021, , 295-308.	0.2	2
64	Analyzing the Patterns of Space-Time Distances for Tracking the Diffusion of an Epidemic. , 2015, , 269-282.		2
65	A multilayer epidemic simulation framework integrating geographic information system with traveling networks. , 2010, , .		1
66	Spatially Characterizing Major Airline Alliances: A Network Analysis. <i>ISPRS International Journal of Geo-Information</i> , 2021, 10, 37.	2.9	1
67	Link Structure Analysis of Urban Street Networks for Delineating Traffic Impact Areas. <i>Advances in Dynamics, Patterns, Cognition</i> , 2017, , 203-220.	0.3	1
68	A Spatial-Temporal Approach to Differentiate Epidemic Risk Patterns. <i>Lecture Notes in Geoinformation and Cartography</i> , 2007, , 214-227.	1.0	1
69	Assessment of the fatality rate and transmissibility taking account of undetected cases during an unprecedented COVID-19 surge in Taiwan. <i>BMC Infectious Diseases</i> , 2022, 22, 271.	2.9	1
70	Elucidating how the red imported fire ant ( <i>Solenopsis invicta</i> ) diffused spatiotemporally among different landscapes in north Taiwan, 2008–2015. <i>Ecology and Evolution</i> , 2021, 11, 18604-18614.	1.9	1
71	Potential Effects of Climate Changes on Dengue Transmission: A Review of Empirical Evidences from Taiwan. <i>Advances in Asian Human-Environmental Research</i> , 2016, , 269-281.	1.0	0
72	Detecting tuberculosis clusters in urban neighborhoods, Taipei, Taiwan: Linking geographic and genotyping evidence. <i>Applied Geography</i> , 2019, 104, 56-64.	3.7	0