Heejun Chang

List of Publications by Year
in descending order

122 papers	6,381 citations	53794 45 h-index	76900 74 g-index
132 all docs	132 docs citations	132 times ranked	6170 citing authors

#	Article	IF	Citations
1	Microplastics in freshwater: A global review of factors affecting spatial and temporal variations. Environmental Pollution, 2022, 292, 118393.	7.5	129
2	Using GIS-based spatial analysis to determine urban greenspace accessibility for different racial groups in the backdrop of COVID-19: a case study of four US cities. Geo Journal, 2022, 87, 4879-4899.	3.1	19
3	The spatial relationship between patterns of disappeared streams and residential development in Portland, Oregon, USA. Journal of Maps, 2022, 18, 210-218.	2.0	5
4	Spatial and temporal variations of microplastic concentrations in Portland's freshwater ecosystems. Science of the Total Environment, 2022, 833, 155143.	8.0	33
5	Urban flood risk and green infrastructure: Who is exposed to risk and who benefits from investment? A case study of three U.S. Cities. Landscape and Urban Planning, 2022, 223, 104417.	7.5	54
6	A social-ecological-technological systems framework for urban ecosystem services. One Earth, 2022, 5, 505-518.	6.8	77
7	Relative impacts of climate change and land cover change on streamflow using SWAT in the Clackamas River Watershed, USA. Journal of Water and Climate Change, 2021, 12, 1454-1470.	2.9	9
8	Seasonal variation in hydrologic performance of ecoroofs of multiple depthsâ€“ a case study in Portland, Oregon, USA. Urban Water Journal, 2021, 18, 128-135.	2.1	0
9	Understanding Urban Flood Resilience in the Anthropocene: A Socialâ€“Ecologicalâ€“Technological Systems (SETS) Learning Framework. Annals of the American Association of Geographers, 2021, 111, 837-857.	2.2	13
10	Environmental and spatial factors affecting surface water quality in a Himalayan watershed, Central Nepal. Environmental and Sustainability Indicators, 2021, 9, 100096.	3.3	11
11	Socio-spatial analysis of residential water demand in Mexico City. Tecnologia Y Ciencias Del Agua, 2021, 12, 59-110.	0.3	3
12	Effects of land use change, wetland fragmentation, and best management practices on total suspended solids concentrations in an urbanizing Oregon watershed, USA. Journal of Environmental Management, 2021, 282, 111962.	7.8	32
13	Assessment of urban flood vulnerability using the social-ecological-technological systems framework in six US cities. Sustainable Cities and Society, 2021, 68, 102786.	10.4	88
14	Active rock glaciers of the contiguous United States: geographic information system inventory and spatial distribution patterns. Earth System Science Data, 2021, 13, 3979-3994.	9.9	9
15	Modeling the system dynamics of irrigatorsâ€™ resilience to climate change in a glacier-influenced watershed. Hydrological Sciences Journal, 2021, 66, 1743-1757.	2.6	5
16	The Value of Urban Flood Modeling. Earth's Future, 2021, 9, e2020EF001739.	6.3	36
17	Detecting change in precipitation indices using observed (1977â€“2016) and modeled future climate data in Portland, Oregon, USA. Journal of Water and Climate Change, 2021, 12, 1135-1153.	2.9	16
18	The June 2021 Extreme Heat Event in Portland, OR, USA: Its Impacts on Ecosystems and Human Health and Potential Adaptation Strategies. Journal of Extreme Events, 2021, 08, .	1.1	1

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19	The Right to Urban Streams: Quantitative Comparisons of Stakeholder Perceptions in Defining Adaptive Stream Restoration. Sustainability, 2020, 12, 9500.	3.2	2
20	Residents' perception of flood risk and urban stream restoration using multiâ€criteria decision analysis. River Research and Applications, 2020, 36, 2078-2088.	1.7	19
21	Present and Future Flood Hazard in the Lower Columbia River Estuary: Changing Flood Hazards in the Portlandâ€Vancouver Metropolitan Area. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015928.	2.6	15
22	Socio-hydrology with hydrosocial theory: two sides of the same coin?. Hydrological Sciences Journal, 2020, 65, 1443-1457.	2.6	49
23	Putting space into modeling landscape and water quality relationships in the Han River basin, South Korea. Computers, Environment and Urban Systems, 2020, 81, 101461.	7.1	6
24	A community-engaged approach to transdisciplinary doctoral training in urban ecosystem services. Sustainability Science, 2020, 15, 699-715.	4.9	13
25	Land Use Change, Extreme Precipitation Events, and Flood Damage in South Korea: A Spatial Approach. Journal of Extreme Events, 2020, 07, 2150001.	1.1	7
26	Sources of contaminated flood sediments in a ruralâ€"urban catchment: Johnson Creek, Oregon. Journal of Flood Risk Management, 2019, 12, .	3.3	10
27	Spatial characteristics and frequency of citizen-observed pluvial flooding events in relation to storm size in Portland, Oregon. Urban Climate, 2019, 29, 100487.	5.7	11
28	Dynamics of wetâ€season turbidity in relation to precipitation, discharge, and land cover in three urbanizing watersheds, Oregon. River Research and Applications, 2019, 35, 892-904.	1.7	19
29	A review of spatial statistical approaches to modeling water quality. Progress in Physical Geography, 2019, 43, 801-826.	3.2	27
30	Building Water-Efficient Cities. Journal of the American Planning Association, 2019, 85, 511-524.	1.7	6
31	Urbanization and floods in the Seoul Metropolitan area of South Korea: What old maps tell us. International Journal of Disaster Risk Reduction, 2019, 37, 101186.	3.9	35
32	Spatial analysis of urban flooding and extreme heat hazard potential in Portland, OR. International Journal of Disaster Risk Reduction, 2019, 39, 101117.	3.9	41
33	Comparing the functional recognition of aesthetics, hydrology, and quality in urban stream restoration through the framework of environmental perception. River Research and Applications, 2019, 35, 543-552.	1.7	11
34	Dreams and Migration in South Koreaâ€™s Border Region: Landscape Change and Environmental Impacts. Annals of the American Association of Geographers, 2019, 109, 476-491.	2.2	9
35	Spatial analysis of landscape and sociodemographic factors associated with green stormwater infrastructure distribution in Baltimore, Maryland and Portland, Oregon. Science of the Total Environment, 2019, 664, 461-473.	8.0	36
36	Defining Extreme Events: A Crossâ€Disciplinary Review. Earth's Future, 2018, 6, 441-455.	6.3	167

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37	Resident perceptions of urban stream restoration and water quality in South Korea. River Research and Applications, 2018, 34, 481-492.	1.7	11
38	The influence of floodplain restoration on flow and sediment dynamics in an urban river. Journal of Flood Risk Management, 2018, 11, S986.	3.3	48
39	Relation Between Stream Temperature and Landscape Characteristics Using Distance Weighted Metrics. Water Resources Management, 2018, 32, 1167-1192.	3.9	8
40	Interdependent Infrastructure as Linked Social, Ecological, and Technological Systems (SETSs) to Address Lockâ€in and Enhance Resilience. Earth's Future, 2018, 6, 1638-1659.	6.3	153
41	Fracturing dams, fractured data: Empirical trends and characteristics of existing and removed dams in the United States. River Research and Applications, 2018, 34, 526-537.	1.7	36
42	Landscape and anthropogenic factors affecting spatial patterns of water quality trends in a large river basin, South Korea. Journal of Hydrology, 2018, 564, 26-40.	5.4	98
43	Pluvial flood risk and opportunities for resilience. Wiley Interdisciplinary Reviews: Water, 2018, 5, e1302.	6.5	121
44	Climate Change and Stream Temperature in the Willamette River Basin: Implications for Fish Habitat. World Scientific Series on Asia-Pacific Weather and Climate, 2018, , 119-132.	0.2	9
45	Assessing mechanisms of climate change impact on the upland forest water balance of the Willamette River Basin, Oregon. Ecohydrology, 2017, 10, e1776.	2.4	10
46	Recent research approaches to urban flood vulnerability, 2006â€"2016. Natural Hazards, 2017, 88, 633-649.	3.4	46
47	Determinants of single family residential water use across scales in four western US cities. Science of the Total Environment, 2017, 596-597, 451-464.	8.0	26
48	Finding water scarcity amid abundance using humanâ€"natural system models. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11884-11889.	7.1	53
49	Watershed Response to Climate Change and Fire-Burns in the Upper Umatilla River Basin, USA. Climate, 2017, 5, 7.	2.8	5
50	Precipitation Intensity Trend Detection using Hourly and Daily Observations in Portland, Oregon. Climate, 2017, 5, 10.	2.8	23
51	Climate change and waterâ€related ecosystem services: impacts of drought in california, usa. Ecosystem Health and Sustainability, 2016, 2, .	3.1	51
52	Using spatially explicit indicators to investigate watershed characteristics and stream temperature relationships. Science of the Total Environment, 2016, 551-552, 376-386.	8.0	19
53	Analysis of long-term climate change on per capita water demand in urban versus suburban areas in the Portland metropolitan area, USA. Journal of Hydrology, 2016, 538, 574-586.	5.4	34
54	Facilitating collaborative urban water management through university-utility cooperation. Sustainable Cities and Society, 2016, 27, 475-483.	10.4	13

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55	Stressors and Strategies for Managing Urban Water Scarcity: Perspectives from the Field. Water (Switzerland), 2015, 7, 6775-6787.	2.7	14
56	Space and time dynamics of urban water demand in Portland, Oregon and Phoenix, Arizona. Stochastic Environmental Research and Risk Assessment, 2015, 29, 1135-1147.	4.0	16
57	Relationships between environmental governance and water quality in a growing metropolitan area of the Pacific Northwest, USA. Hydrology and Earth System Sciences, 2014, 18, 1383-1395.	4.9	35
58	Development of Future Land Cover Change Scenarios in the Metropolitan Fringe, Oregon, U.S., with Stakeholder Involvement. Land, 2014, 3, 322-341.	2.9	13
59	Spatial analysis of annual runoff ratios and their variability across the contiguous U.S.. Journal of Hydrology, 2014, 511, 387-402.	5.4	31
60	Assessment of freshwater ecosystem services in the Tualatin and Yamhill basins under climate change and urbanization. Applied Geography, 2014, 53, 402-416.	3.7	122
61	Spatial analysis of graffiti in San Francisco. Applied Geography, 2014, 54, 63-73.	3.7	22
62	Response of discharge, TSS, and E. coli to rainfall events in urban, suburban, and rural watersheds. Environmental Sciences: Processes and Impacts, 2014, 16, 2313-2324.	3.5	51
63	Improving Higher-Order Thinking and Knowledge Retention in Environmental Science Teaching. BioScience, 2014, 64, 40-48.	4.9	17
64	Climate change, urban development, and community perception ofÂanÂextreme flood: A case study of Vernonia, Oregon, USA. Applied Geography, 2014, 46, 137-146.	3.7	45
65	Urban water consumption and weather variation in the Portland, Oregon metropolitan area. Urban Climate, 2014, 9, 1-18.	5.7	19
66	Valuing water quality in urban watersheds: A comparative analysis of Johnson Creek, Oregon, and Burnt Bridge Creek, Washington. Water Resources Research, 2014, 50, 4254-4268.	4.2	54
67	Characterizing urban ecosystem services: integrating the biophysical and social dimensions of human-dominated landscapes. , 2014, , .		0
68	Vulnerability of Water Systems to the Effects of Climate Change and Urbanization: A Comparison of Phoenix, Arizona and Portland, Oregon (USA). Environmental Management, 2013, 52, 179-195.	2.7	32
69	Toward a formal definition of water scarcity in naturalâ€human systems. Water Resources Research, 2013, 49, 4506-4517.	4.2	65
70	Water Supply, Demand, and Quality Indicators for Assessing the Spatial Distribution of Water Resource Vulnerability in the Columbia River Basin. Atmosphere - Ocean, 2013, 51, 339-356.	1.6	28
71	Local landscape predictors of maximum stream temperature and thermal sensitivity in the Columbia River Basin, USA. Science of the Total Environment, 2013, 461-462, 587-600.	8.0	67
72	Spatially-explicit assessment of flood risk caused by climate change in South Korea. KSCE Journal of Civil Engineering, 2013, 17, 233-243.	1.9	3

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73	Spatial variability of the response to climate change in regional groundwater systems â€“ Examples from simulations in the Deschutes Basin, Oregon. Journal of Hydrology, 2013, 486, 187-201.	5.4	37
74	Why Land Planners and Water Managers Don't Talk to One Another and Why They Should!. Society and Natural Resources, 2013, 26, 356-364.	1.9	58
75	Effects of runoff sensitivity and catchment characteristics on regional actual evapotranspiration trends in the conterminous US. Environmental Research Letters, 2013, 8, 044002.	5.2	16
76	Tradeoffs Between Water Conservation and Temperature Amelioration In Phoenix and Portland: Implications For Urban Sustainability. Urban Geography, 2012, 33, 1030-1054.	3.0	37
77	Land-use, temperature, and single-family residential water use patterns in Portland, Oregon and Phoenix, Arizona. Applied Geography, 2012, 35, 142-151.	3.7	57
78	Selection of hydrologic modeling approaches for climate change assessment: A comparison of model scale and structures. Journal of Hydrology, 2012, 464-465, 233-248.	5.4	62
79	Uncertainty assessment of climate change impacts for hydrologically distinct river basins. Journal of Hydrology, 2012, 466-467, 73-87.	5.4	47
80	Climate change impacts on spatial patterns in drought risk in the Willamette River Basin, Oregon, USA. Theoretical and Applied Climatology, 2012, 108, 355-371.	2.8	46
81	Spatial Patterns of <scp>M</scp>arch and <scp>S</scp>eptember Streamflow Trends in <scp>P</scp>acific <scp>N</scp>orthwest Streams, 1958â€“2008. Geographical Analysis, 2012, 44, 177-201.	3.5	29
82	Effects of land cover, topography, and built structure on seasonal water quality at multiple spatial scales. Journal of Hazardous Materials, 2012, 209-210, 48-58.	12.4	235
83	Land cover, climate, and the summer surface energy balance in Phoenix, AZ, and Portland, OR. International Journal of Climatology, 2012, 32, 2020-2032.	3.5	35
84	Impacts of Climate Change and Urban Development on Water Resources in the Tualatin River Basin, Oregon. Annals of the American Association of Geographers, 2011, 101, 249-271.	3.0	63
85	Urban water demand modeling: Review of concepts, methods, and organizing principles. Water Resources Research, 2011, 47, .	4.2	289
86	Modeling the impact of land use and climate change on neighborhood-scale evaporation and nighttime cooling: A surface energy balance approach. Landscape and Urban Planning, 2011, 103, 139-155.	7.5	47
87	Quantifying uncertainty in urban flooding analysis considering hydro-climatic projection and urban development effects. Hydrology and Earth System Sciences, 2011, 15, 617-633.	4.9	91
88	Geographical analysis of commercial motor vehicle hazardous materials crashes on the Oregon state highway system. Environmental Hazards, 2011, 10, 171-184.	2.5	4
89	Assessment of future runoff trends under multiple climate change scenarios in the Willamette River Basin, Oregon, USA. Hydrological Processes, 2011, 25, 258-277.	2.6	67
90	Valuing ecological systems and services. F1000 Biology Reports, 2011, 3, 14.	4.0	84

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91	Hydroclimatological response to dynamically downscaled climate change simulations for Korean basins. Climatic Change, 2010, 100, 485-508.	3.6	34
92	Spatial and temporal changes in runoff caused by climate change in a complex large river basin in Oregon. Journal of Hydrology, 2010, 388, 186-207.	5.4	139
93	Effects of Urban Spatial Structure, Sociodemographics, and Climate on Residential Water Consumption in Hillsboro, Oregon¹. Journal of the American Water Resources Association, 2010, 46, 461-472.	2.4	134
94	Quantifying Hydrological Uncertainty for Rain- and Snow-Dominated Watersheds with Adaptation Strategy. , 2010, , .		0
95	Spatial Variations of Single-Family Residential Water Consumption in Portland, Oregon. Urban Geography, 2010, 31, 953-972.	3.0	95
96	Potential Impacts of Climate Change on Flood-Induced Travel Disruptions: A Case Study of Portland, Oregon, USA. Annals of the American Association of Geographers, 2010, 100, 938-952.	3.0	93
97	The effects of climate change and urbanization on the runoff of the Rock Creek basin in the Portland metropolitan area, Oregon, USA. Hydrological Processes, 2009, 23, 805-815.	2.6	162
98	Winter precipitation intensity and ENSO/PDO variability in the Willamette Valley of Oregon. International Journal of Climatology, 2009, 29, 2033-2039.	3.5	17
99	What is responsible for increasing flood risks? The case of Gangwon Province, Korea. Natural Hazards, 2009, 48, 339-354.	3.4	72
100	Spatial Analysis of Water Use in Oregon, USA, 1985â€"2005. Water Resources Management, 2009, 23, 755-774.	3.9	53
101	Identifying the Relationships Between Urban Water Consumption and Weather Variables in Seoul, Korea. Physical Geography, 2009, 30, 324-337.	1.4	60
102	A review of hydrological modelling of basin-scale climate change and urban development impacts. Progress in Physical Geography, 2009, 33, 650-671.	3.2	191
103	Monitoring the channel process of a stream restoration project in an urbanizing watershed: a case study of Kelley Creek, Oregon, USA. River Research and Applications, 2008, 24, 169-182.	1.7	23
104	Longâ€term trend of precipitation and runoff in Korean river basins. Hydrological Processes, 2008, 22, 2644-2656.	2.6	132
105	Multi-scale analysis of oxygen demand trends in an urbanizing Oregon watershed, USA. Journal of Environmental Management, 2008, 87, 567-581.	7.8	39
106	Climate Change, Landâ€Use Change, and Floods: Toward an Integrated Assessment. Geography Compass, 2008, 2, 1549-1579.	2.7	91
107	Rates of urbanisation and the resiliency of air and water quality. Science of the Total Environment, 2008, 400, 238-256.	8.0	176
108	Spatial analysis of water quality trends in the Han River basin, South Korea. Water Research, 2008, 42, 3285-3304.	11.3	396

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109	Potential changes in Korean water resources estimated by high-resolution climate simulation. Climate Research, 2008, 35, 213-226.	1.1	69
110	Spatial variations of summer precipitation trends in South Korea, 1973â€"2005. Environmental Research Letters, 2007, 2, 045012.	5.2	87
111	Vulnerability of Korean water resources to climate change and population growth. Water Science and Technology, 2007, 56, 57-62.	2.5	20
112	Comparative streamflow characteristics in urbanizing basins in the Portland Metropolitan Area, Oregon, USA. Hydrological Processes, 2007, 21, 211-222.	2.6	100
113	Hydrologic impacts of climate change in the Upper Clackamas River Basin, Oregon, USA. Climate Research, 2007, 33, 143-157.	1.1	31
114	Spatial and Temporal Variations of Water Quality in the Han River and Its Tributaries, Seoul, Korea, 1993â€"2002. Water, Air, and Soil Pollution, 2005, 161, 267-284.	2.4	94
115	Water quality during winter storm events in Spring Creek, Pennsylvania USA. Hydrobiologia, 2005, 544, 321-332.	2.0	31
116	Basin Hydrologic Response to Changes in Climate and Land Use: the Conestoga River Basin, Pennsylvania. Physical Geography, 2003, 24, 222-247.	1.4	50
117	Water resource impacts of climate change in southwestern Bulgaria. Geo Journal, 2002, 57, 159-168.	3.1	29
118	A Simplified Basin Model For Simulating Runoff: The Struma River GIS. Professional Geographer, 2001, 53, 533-545.	1.8	15
119	THE EFFECTS OF CLIMATE CHANGE ON STREAM FLOW AND NUTRIENT LOADING1. Journal of the American Water Resources Association, 2001, 37, 973-985.	2.4	57
120	Impact of climate variation and change on Mid-Atlantic Region hydrology and water resources. Climate Research, 2000, 14, 207-218.	1.1	82
121	Rapid land use change impacts on coastal ecosystem services: a South Korean case study. , 0, , 119-126.		0
122	Transition of water quality policies in Oregon, USA and South Korea: A historical socio-hydrological approach. Hydrological Sciences Journal, 0, , .	2.6	1