Heidi Kreibich

List of Publications by Citations

153 papers	7,952 citations	46 h-index	87 g-index
206 ext. papers	9,343 ext. citations	4.6 avg, IF	6.15 L-index

#	Paper	IF	Citations
153	Review article "Assessment of economic flood damage". *Natural Hazards and Earth System Sciences*, **2010**, 10, 1697-1724	3.9	696
152	Flood risk analyses□how detailed do we need to be?. *Natural Hazards*, **2009**, 49, 79-98	3	362
151	Estimation uncertainty of direct monetary flood damage to buildings. *Natural Hazards and Earth System Sciences*, **2004**, 4, 153-163	3.9	296
150	Review article: Assessing the costs of natural hazards□state of the art and knowledge gaps. *Natural Hazards and Earth System Sciences*, **2013**, 13, 1351-1373	3.9	285
149	Comparative flood damage model assessment: towards a European approach. *Natural Hazards and Earth System Sciences*, **2012**, 12, 3733-3752	3.9	264
148	Flood loss reduction of private households due to building precautionary measures□lessons learned from the Elbe flood in August 2002. *Natural Hazards and Earth System Sciences*, **2005**, 5, 117-126	3.9	262
147	Twenty-three unsolved problems in hydrology (UPH)□a community perspective. *Hydrological Sciences Journal*, **2019**, 64, 1141-1158	3.5	259
146	Flood damage and influencing factors: New insights from the August 2002 flood in Germany. *Water Resources Research*, **2005**, 41,	5.4	234
145	Coping with floods: preparedness, response and recovery of flood-affected residents in Germany in 2002. *Hydrological Sciences Journal*, **2007**, 52, 1016-1037	3.5	227
144	Flood-risk mapping: contributions towards an enhanced assessment of extreme events and associated risks. *Natural Hazards and Earth System Sciences*, **2006**, 6, 485-503	3.9	199
143	Detailed insights into the influence of flood-coping appraisals on mitigation behaviour. *Global Environmental Change*, **2013**, 23, 1327-1338	10.1	187
142	Is flow velocity a significant parameter in flood damage modelling?. *Natural Hazards and Earth System Sciences*, **2009**, 9, 1679-1692	3.9	161
141	Insurability and mitigation of flood losses in private households in Germany. *Risk Analysis*, **2006**, 26, 383-95	3.9	154
140	Flood risk assessments at different spatial scales. *Mitigation and Adaptation Strategies for Global Change*, **2015**, 20, 865-890	3.9	148
139	Multi-variate flood damage assessment: a tree-based data-mining approach. *Natural Hazards and Earth System Sciences*, **2013**, 13, 53-64	3.9	141
138	Development of FLEMOcs□a new model for the estimation of flood losses in the commercial sector. *Hydrological Sciences Journal*, **2010**, 55, 1302-1314	3.5	129
137	Social media as an information source for rapid flood inundation mapping. *Natural Hazards and Earth System Sciences*, **2015**, 15, 2725-2738	3.9	125

136	Sociohydrology: Scientific Challenges in Addressing the Sustainable Development Goals. *Water Resources Research*, **2019**, 55, 6327-6355	5.4	119
135	Adaptation to flood risk: Results of international paired flood event studies. *Earth's Future*, **2017**, 5, 953-965	7.9	111
134	Recent changes in flood preparedness of private households and businesses in Germany. *Regional Environmental Change*, **2011**, 11, 59-71	4.3	110
133	Long-term development and effectiveness of private flood mitigation measures: an analysis for the German part of the river Rhine. *Natural Hazards and Earth System Sciences*, **2012**, 12, 3507-3518	3.9	100
132	How useful are complex flood damage models?. *Water Resources Research*, **2014**, 50, 3378-3395	5.4	96
131	Spatially coherent flood risk assessment based on long-term continuous simulation with a coupled model chain. *Journal of Hydrology*, **2015**, 524, 182-193	6	95
130	Adaptive flood risk management planning based on a comprehensive flood risk conceptualisation. *Mitigation and Adaptation Strategies for Global Change*, **2015**, 20, 845-864	3.9	92
129	Development and evaluation of FLEMOps a new Flood Loss Estimation MOdel for the private sector. *WIT Transactions on Ecology and the Environment*, **2008**,	1	91
128	A review of damage-reducing measures to manage fluvial flood risks in a changing climate. *Mitigation and Adaptation Strategies for Global Change*, **2015**, 20, 967-989	3.9	85
127	Economic motivation of households to undertake private precautionary measures against floods. *Natural Hazards and Earth System Sciences*, **2011**, 11, 309-321	3.9	85
126	Coping with floods in the city of Dresden, Germany. *Natural Hazards*, **2009**, 51, 423-436	3	84
125	A Review of Flood Loss Models as Basis for Harmonization and Benchmarking. *PLoS ONE*, **2016**, 11, e0159791	3.7	81
124	Review of the flood risk management system in Germany after the major flood in 2013. *Ecology and Society*, **2016**, 21,	4.1	81
123	Influence of flood frequency on residential building losses. *Natural Hazards and Earth System Sciences*, **2010**, 10, 2145-2159	3.9	80
122	Explaining differences in flood management approaches in Europe and in the USA - a comparative analysis. *Journal of Flood Risk Management*, **2017**, 10, 436-445	3.1	78
121	The flood of June 2013 in Germany: how much do we know about its impacts?. *Natural Hazards and Earth System Sciences*, **2016**, 16, 1519-1540	3.9	75
120	Assessment of damage caused by high groundwater inundation. *Water Resources Research*, **2008**, 44,	5.4	74
119	Analysis of a detention basin impact on dike failure probabilities and flood risk for a channel-dike-floodplain system along the river Elbe, Germany. *Journal of Hydrology*, **2012**, 436-437, 120-131	6	72

118	Drivers of flood risk change in residential areas. *Natural Hazards and Earth System Sciences*, **2012**, 12, 1641-1657	3.9	70
117	Flood precaution of companies and their ability to cope with the flood in August 2002 in Saxony, Germany. *Water Resources Research*, **2007**, 43,	5.4	65
116	Continuous, large-scale simulation model for flood risk assessments: proof-of-concept. *Journal of Flood Risk Management*, **2016**, 9, 3-21	3.1	62
115	After the extreme flood in 2002: changes in preparedness, response and recovery of flood-affected residents in Germany between 2005 and 2011. *Natural Hazards and Earth System Sciences*, **2015**, 15, 505-526	3.9	60
114	Improvements on flood alleviation in Germany: lessons learned from the Elbe flood in August 2002. *Environmental Management*, **2006**, 38, 717-32	3.1	55
113	Estimation of flood losses to agricultural crops using remote sensing. *Physics and Chemistry of the Earth*, **2011**, 36, 253-265	3	50
112	Hess Opinions: An interdisciplinary research agenda to explore the unintended consequences of structural flood protection. *Hydrology and Earth System Sciences*, **2018**, 22, 5629-5637	5.5	50
111	Development and validation of methods for the trace determination of PCBs in biological matrices. *Chemosphere*, **1998**, 36, 2447-59	8.4	49
110	Coping with Pluvial Floods by Private Households. *Water (Switzerland)*, **2016**, 8, 304	3	49
109	Evaluating the effectiveness of flood damage mitigation measures by the application of propensity score matching. *Natural Hazards and Earth System Sciences*, **2014**, 14, 1731-1747	3.9	48
108	Development and assessment of uni- and multivariable flood loss models for Emilia-Romagna (Italy). *Natural Hazards and Earth System Sciences*, **2018**, 18, 2057-2079	3.9	46
107	Causative classification of river flood events. *Wiley Interdisciplinary Reviews: Water*, **2019**, 6, e1353	5.7	45
106	The behavioral turn in flood risk management, its assumptions and potential implications. *Wiley Interdisciplinary Reviews: Water*, **2020**, 7, e1418	5.7	44
105	Influence of flood risk characteristics on flood insurance demand: a comparison between Germany and the Netherlands. *Natural Hazards and Earth System Sciences*, **2013**, 13, 1691-1705	3.9	44
104	Panta Rhei 2013–2015: global perspectives on hydrology, society and change. *Hydrological Sciences Journal*, **2016**, 1-18	3.5	44
103	Application and validation of FLEMOcs – a flood-loss estimation model for the commercial sector. *Hydrological Sciences Journal*, **2010**, 55, 1315-1324	3.5	42
102	A delphi method expert survey to derive standards for flood damage data collection. *Risk Analysis*, **2010**, 30, 107-24	3.9	42
101	Measurement of Indoor Formaldehyde Concentrations with a Passive Sampler. *Environmental Science & Technology*, **2000**, 34, 2051-2056	10.3	41

100	PAHs in soils: contemporary UK data and evidence for potential contamination problems caused by exposure of samples to laboratory air. *Science of the Total Environment*, **1997**, 203, 141-156	10.2	40
99	Adaptation of water resources systems to changing society and environment: a statement by the International Association of Hydrological Sciences. *Hydrological Sciences Journal*, **2016**, 61, 2803-2817	3.5	40
98	How to improve attribution of changes in drought and flood impacts. *Hydrological Sciences Journal*, **2019**, 64, 1-18	3.5	39
97	Probabilistic, Multivariable Flood Loss Modeling on the Mesoscale with BT-FLEMO. *Risk Analysis*, **2017**, 37, 774-787	3.9	39
96	Extent, perception and mitigation of damage due to high groundwater levels in the city of Dresden, Germany. *Natural Hazards and Earth System Sciences*, **2009**, 9, 1247-1258	3.9	39
95	Evolutionary leap in large-scale flood risk assessment needed. *Wiley Interdisciplinary Reviews: Water* , **2018**, 5, e1266	5.7	38
94	The role of disaggregation of asset values in flood loss estimation: a comparison of different modeling approaches at the Mulde River, Germany. *Environmental Management*, **2009**, 44, 524-41	3.1	38
93	Moral Hazard in Natural Disaster Insurance Markets: Empirical Evidence from Germany and the United States. *Land Economics*, **2017**, 93, 179-208	1.6	37
92	The 2011 flood event in the Mekong Delta: preparedness, response, damage and recovery of private households and small businesses. *Disasters*, **2016**, 40, 753-78	2.8	34
91	Regional and Temporal Transferability of Multivariable Flood Damage Models. *Water Resources Research*, **2018**, 54, 3688-3703	5.4	33
90	A review of multiple natural hazards and risks in Germany. *Natural Hazards*, **2014**, 74, 2279-2304	3	31
89	Impact Forecasting to Support Emergency Management of Natural Hazards. *Reviews of Geophysics*, **2020**, 58, e2020RG000704	23.1	29
88	Multi-model ensembles for assessment of flood losses and associated uncertainty. *Natural Hazards and Earth System Sciences*, **2018**, 18, 1297-1314	3.9	28
87	Flood Damage Modeling on the Basis of Urban Structure Mapping Using High-Resolution Remote Sensing Data. *Water (Switzerland)*, **2014**, 6, 2367-2393	3	27
86	Causes, impacts and patterns of disastrous river floods. *Nature Reviews Earth & Environment*, **2021**, 2, 592-609	30.2	26
85	Flood loss estimation using 3D city models and remote sensing data. *Environmental Modelling and Software*, **2018**, 105, 118-131	5.2	25
84	Flood risk analysis: uncertainties and validation. *Osterreichische Wasser- Und Abfallwirtschaft*, **2008**, 60, 89-94	0.4	25
83	Do perceptions of climate change influence precautionary measures?. *International Journal of Climate Change Strategies and Management*, **2011**, 3, 189-199	3.9	24

82	The need to integrate flood and drought disaster risk reduction strategies. *Water Security*, **2020**, 11, 100070	3.8	23
81	Multi-Variate Analyses of Flood Loss in Can Tho City, Mekong Delta. *Water (Switzerland)*, **2016**, 8, 6	3	23
80	The Value of Empirical Data for Estimating the Parameters of a Sociohydrological Flood Risk Model. *Water Resources Research*, **2019**, 55, 1312-1336	5.4	22
79	Probabilistic Models Significantly Reduce Uncertainty in Hurricane Harvey Pluvial Flood Loss Estimates. *Earth's Future*, **2019**, 7, 384-394	7.9	22
78	Are flood damage models converging to "reality"? Lessons learnt from a blind test. *Natural Hazards and Earth System Sciences*, **2020**, 20, 2997-3017	3.9	22
77	New insights into flood warning reception and emergency response by affected parties. *Natural Hazards and Earth System Sciences*, **2017**, 17, 2075-2092	3.9	21
76	Tree-based flood damage modeling of companies: Damage processes and model performance. *Water Resources Research*, **2017**, 53, 6050-6068	5.4	21
75	A comparative survey of the impacts of extreme rainfall in two international case studies. *Natural Hazards and Earth System Sciences*, **2017**, 17, 1337-1355	3.9	21
74	Large-scale, seasonal flood risk analysis for agricultural crops in Germany. *Environmental Earth Sciences*, **2016**, 75, 1	2.9	21
73	Estimation of symbiotic N2 fixation in an Amazon floodplain forest. *Oecologia*, **2006**, 147, 359-68	2.9	19
72	Preface: Flood-risk analysis and integrated management. *Natural Hazards and Earth System Sciences* , **2016**, 16, 1005-1010	3.9	19
71	How do changes along the risk chain affect flood risk?. *Natural Hazards and Earth System Sciences*, **2018**, 18, 3089-3108	3.9	19
70	Integrated assessment of short-term direct and indirect economic flood impacts including uncertainty quantification. *PLoS ONE*, **2019**, 14, e0212932	3.7	18
69	Detection and Attribution of Changes in Flood Hazard and Risk **2012**, 435-458		18
68	Nitrogen fixation and denitrification in a floodplain forest near Manaus, Brazil. *Hydrological Processes*, **2003**, 17, 1431-1441	3.3	17
67	The role of spatial dependence for large-scale flood risk estimation. *Natural Hazards and Earth System Sciences*, **2020**, 20, 967-979	3.9	15
66	Data Collection for a Better Understanding of What Causes Flood Damage—Experiences with Telephone Surveys. *Geophysical Monograph Series*, **2017**, 95-106	1.1	14
65	An evaluation of disaster risk reduction (DRR) approaches for coastal delta cities: a comparative analysis. *Natural Hazards*, **2016**, 83, 1257-1278	3	14

64	A Consistent Approach for Probabilistic Residential Flood Loss Modeling in Europe. *Water Resources Research*, **2019**, 55, 10616-10635	5.4	14
63	Estimating exposure of residential assets to natural hazards in Europe using open data. *Natural Hazards and Earth System Sciences*, **2020**, 20, 323-343	3.9	13
62	Quantifying Flood Vulnerability Reduction via Private Precaution. *Earth's Future*, **2019**, 7, 235-249	7.9	13
61	Assessment of Business Interruption of Flood-Affected Companies Using Random Forests. *Water (Switzerland)*, **2018**, 10, 1049	3	13
60	Flood Loss Models and Risk Analysis for Private Households in Can Tho City, Vietnam. *Water (Switzerland)*, **2017**, 9, 313	3	12
59	Hierarchical Bayesian Approach for Modeling Spatiotemporal Variability in Flood Damage Processes. *Water Resources Research*, **2019**, 55, 8223-8237	5.4	10
58	Multiple Flood Experiences and Social Resilience: Findings from Three Surveys on Households and Companies Exposed to the 2013 Flood in Germany. *Weather, Climate, and Society*, **2020**, 12, 63-88	2.3	10
57	Exposure and vulnerability estimation for modelling flood losses to commercial assets in Europe. *Science of the Total Environment*, **2020**, 737, 140011	10.2	9
56	Preface: Damage of natural hazards: assessment and mitigation. *Natural Hazards and Earth System Sciences*, **2019**, 19, 551-554	3.9	8
55	Nitrogen Balance of a Floodplain Forest of the Amazon River: The Role of Nitrogen Fixation. *Ecological Studies*, **2010**, 281-299	1.1	8
54	Impact-Based Forecasting for Pluvial Floods. *Earth's Future*, **2021**, 9, 2020EF001851	7.9	8
53	Seamless Estimation of Hydrometeorological Risk Across Spatial Scales. *Earth's Future*, **2019**, 7, 574-581	7.9	7
52	HOWAS21, the German Flood Damage Database. *Geophysical Monograph Series*, **2017**, 65-75	1.1	7
51	Corrigendum to "Economic motivation of households to undertake private precautionary measures against floods" published in Nat. Hazards Earth Syst. Sci., 11, 309–321, 2011. *Natural Hazards and Earth System Sciences*, **2012**, 12, 391-392	3.9	7
50	Nitrogen availability and leaching during the terrestrial phase in a várzea forest of the Central Amazon floodplain. *Biology and Fertility of Soils*, **2003**, 39, 62-64	6.1	7
49	Challenges for Bayesian network learning in a flood damage assessment application **2014**, 3123-3130		6
48	Social media as an information source for rapid flood inundation mapping		6
47	A probabilistic approach to estimating residential losses from different flood types. *Natural Hazards*, **2021**, 105, 2569-2601	3	6

46	Preface: Natural hazard event analysis for risk reduction and adaptation. *Natural Hazards and Earth System Sciences*, **2018**, 18, 963-968	3.9	6
45	Flood risk insurance, mitigation and commercial property valuation. *Property Management*, **2019**, 37, 512-528	1	5
44	Needed: A systems approach to improve flood risk mitigation through private precautionary measures. *Water Security*, **2020**, 11, 100080	3.8	5
43	Tracing the value of data for flood loss modelling. *E3S Web of Conferences*, **2016**, 7, 05005	0.5	5
42	Improved Transferability of Data-Driven Damage Models Through Sample Selection Bias Correction. *Risk Analysis*, **2021**, 41, 37-55	3.9	5
41	Flood risk to commercial property. *International Journal of Disaster Resilience in the Built Environment*, **2018**, 9, 385-401	1.4	5
40	Flood precaution and coping with floods of companies in Germany. *WIT Transactions on Ecology and the Environment*, **2008**,	1	4
39	Assessment of damages caused by different flood types **2010**,		4
38	The object-specific flood damage database HOWAS´21. *Natural Hazards and Earth System Sciences*, **2020**, 20, 2503-2519	3.9	4
37	Quantification of Socio-Economic Flood Risks **2011**, 229-247		4
36	Bayesian Data-Driven approach enhances synthetic flood loss models. *Environmental Modelling and Software*, **2020**, 132, 104798	5.2	4
35	A data-mining approach towards damage modelling for El Niño events in Peru. *Geomatics, Natural Hazards and Risk*, **2020**, 11, 1966-1990	3.6	4
34	Inventory of dams in Germany. *Earth System Science Data*, **2021**, 13, 731-740	10.5	4
33	Comparative analysis of scalar upper tail indicators. *Hydrological Sciences Journal*, **2020**, 65, 1625-1639	3.5	3
32	Compound inland flood events: different pathways, different impacts and different coping options. *Natural Hazards and Earth System Sciences*, **2022**, 22, 165-185	3.9	3
31	Harmonizing and comparing single-type natural hazard risk estimations. *Annals of Geophysics*, **2016**, 59,	1.1	3
30	New insights into flood warning and emergency response from the perspective of affected parties **2016**,		3
29	Are OpenStreetMap building data useful for flood vulnerability modelling?. *Natural Hazards and Earth System Sciences*, **2021**, 21, 643-662	3.9	3

28	Knowing What to Do Substantially Improves the Effectiveness of Flood Early Warning. *Bulletin of the American Meteorological Society*, **2021**, 102, E1450-E1463	6.1	3
27	LESSONS LEARNED FROM THE ELBE RIVER FLOODS IN AUGUST 2002 - WITH A SPECIAL FOCUS ON FLOOD WARNING **2006**, 69-80		3
26	Are flood damage models converging to reality? Lessons learnt from a blind test **2020**,		2
25	Explaining differences in flood management approaches in Europe and the USA **2012**,		2
24	Hess Opinions: An interdisciplinary research agenda to explore the unintended consequences of structural flood protection		2
23	The flood of June 2013 in Germany: how much do we know about its impacts?		2
22	The object-specific flood damage database HOWAS21		2
21	After the extreme flood in 2002: changes in preparedness, response and recovery of flood-affected residents in Germany between 2005 and 2011		2
20	Evaluating the effectiveness of flood damage mitigation measures by the application of Propensity Score Matching		2
19	Up-scaling of multi-variable flood loss models from objects to land use units at the meso-scale. *Proceedings of the International Association of Hydrological Sciences*,373, 179-182		2
18	Probabilistic Flood Loss Models for Companies. *Water Resources Research*, **2020**, 56, e2020WR027649	5.4	2
17	Large-scale flood risk assessment using a coupled model chain. *E3S Web of Conferences*, **2016**, 7, 11005	0.5	2
16	Assessing the Costs of Natural Hazards State of the Art and the Way Forward **2014**, 253-290		1
15	Preface: Current advances in analysis, modelling and mitigation of the costs of natural hazards. *Natural Hazards and Earth System Sciences*, **2015**, 15, 1157-1162	3.9	1
14	Estimation of flood losses due to business interruption **2008**, 1669-1676		1
13	Forest Biological Resources in the Amazon Basin **2004**, 83-92		1
12	Process-Based Flood Risk Assessment for Germany. *Earth's Future*, **2021**, 9, e2021EF002259	7.9	1
11	Critical research in the water-related multi-hazard field. *Nature Sustainability*, **2022**, 5, 90-91	22.1	1

10	Assessment of flood loss model transferability considering changes in precaution of flood-affected residents in Germany. *E3S Web of Conferences*, **2016**, 7, 13002	0.5	0
9	From Precipitation to Damage. *Geophysical Monograph Series*, **2018**, 169-183	1.1	0
8	Invited perspectives: Natural hazard management, professional development and gender equity: let's get down to business *Natural Hazards and Earth System Sciences*, **2022**, 22, 85-96	3.9	0
7	Extrapolating Satellite-Based Flood Masks by One-Class Classification A Test Case in Houston. *Remote Sensing*, **2021**, 13, 2042	5	0
6	Risikokarten f Deutschland: Ergebnisse aus dem Center for Disaster Management and Risk Reduction Technology (CEDIM). *Gaia*, **2007**, 16, 313-316	1.4	
5	Dynamic Flood Risk Modelling in Human lood Systems. *Springer Climate*, **2022**, 95-103	0.3	
4	Estimating parameter values of a socio-hydrological flood model. *Proceedings of the International Association of Hydrological Sciences*,379, 193-198		
3	Approaches to analyse and model changes in impacts: reply to discussions of ow to improve attribution of changes in drought and flood impacts. *Hydrological Sciences Journal*, **2020**, 65, 491-494	3.5	
2	Brief communication: Key papers of 20´years in <i>Natural Hazards and Earth System Sciences</i>. *Natural Hazards and Earth System Sciences*, **2022**, 22, 985-993	3.9	
1	Preface: Recent advances in drought and water scarcity monitoring, modelling, and forecasting. *Natural Hazards and Earth System Sciences*, **2022**, 22, 1857-1862	3.9	