

Andrea Flossmann

List of Publications by Year in descending order

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88
papers

4,636
citations

109264

35
h-index

102432

66
g-index

97
all docs

97
docs citations

97
times ranked

5754
citing authors

#	ARTICLE	IF	CITATIONS
1	The effect of cloud-processing of aerosol particles on clouds and radiation. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 50, 478.	0.8	14
2	Laboratory study of the collection efficiency of submicron aerosol particles by cloud droplets – Part I: Influence of relative humidity. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6945-6962.	1.9	5
3	Laboratory study of the collection efficiency of submicron aerosol particles by cloud droplets – Part II: Influence of electric charges. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6963-6984.	1.9	6
4	Contribution of Phoretic and Electrostatic Effects to the Collection Efficiency of Submicron Aerosol Particles by Raindrops. <i>Atmosphere</i> , 2020, 11, 1028.	1.0	7
5	Evaluation of Two Cloud-Resolving Models Using Bin or Bulk Microphysics Representation for the HyMeX-IOP7a Heavy Precipitation Event. <i>Atmosphere</i> , 2020, 11, 1177.	1.0	0
6	Oxygen Isotopic Fractionation in Clouds: A Bin-Resolved Microphysics Model Approach. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031753.	1.2	1
7	The sensitivity of intense rainfall to aerosol particle loading – a comparison of bin-resolved microphysics modelling with observations of heavy precipitation from HyMeX IOP7a. <i>Natural Hazards and Earth System Sciences</i> , 2020, 20, 1469-1483.	1.5	2
8	CÅzeaux-Aulnat-Opme-Puy De DÃme: a multi-site for the long-term survey of the tropospheric composition and climate change. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 3413-3445.	1.2	26
9	Cloud Processing of Aerosol Particles in Marine Stratocumulus Clouds. <i>Atmosphere</i> , 2019, 10, 520.	1.0	10
10	Theoretical study of aerosol particle electroscavenging by clouds. <i>Journal of Aerosol Science</i> , 2019, 135, 1-20.	1.8	16
11	Review of Advances in Precipitation Enhancement Research. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 1465-1480.	1.7	56
12	Water-limited vegetated ecosystems driven by stochastic rainfall: feedbacks and bimodality. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018, 474, 20170649.	1.0	1
13	Experimental evidence of the rear capture of aerosol particles by raindrops. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 4159-4176.	1.9	12
14	Probabilistic model predicts dynamics of vegetation biomass in a desert ecosystem in NW China. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E4944-E4950.	3.3	21
15	Geomorphic controls on elevational gradients of species richness. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 1737-1742.	3.3	97
16	Cloud Processing of Aerosol Particles: Consequences for Precipitation?. <i>Springer Proceedings in Complexity</i> , 2016, , 219-223.	0.2	0
17	Plant biomass and soil moisture dynamics: analytical results. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20150179.	1.0	11
18	Metapopulation capacity of evolving fluvial landscapes. <i>Water Resources Research</i> , 2015, 51, 2696-2706.	1.7	39

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19	Stochastic soil water balance under seasonal climates. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140623.	1.0	43
20	Balancing water resource conservation and food security in China. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4588-4593.	3.3	145
21	Point rainfall statistics for ecohydrological analyses derived from satellite integrated rainfall measurements. Water Resources Research, 2015, 51, 2974-2985.	1.7	14
22	Relation between rainfall intensity and savanna tree abundance explained by water use strategies. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12992-12996.	3.3	44
23	Demodulation of time series highlights impacts of hydrologic drivers on the Everglades ecosystem. Ecohydrology, 2015, 8, 204-213.	1.1	1
24	An experiment to measure raindrop collection efficiencies: influence of rear capture. Atmospheric Measurement Techniques, 2014, 7, 1321-1330.	1.2	26
25	Cholera in the Lake Kivu region (DRC): Integrating remote sensing and spatially explicit epidemiological modeling. Water Resources Research, 2014, 50, 5624-5637.	1.7	27
26	The continuous melting process in a cloud-scale model using a bin microphysics scheme. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 1986-1996.	1.0	8
27	The importance of new collection efficiency values including the effect of rear capture for the below-cloud scavenging of aerosol particles. Atmospheric Research, 2014, 142, 57-66.	1.8	23
28	Scaling properties of tidal networks. Water Resources Research, 2014, 50, 4585-4602.	1.7	13
29	Water resources transfers through Chinese interprovincial and foreign food trade. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 9774-9779.	3.3	199
30	Classification of clouds sampled at the puy de D'Áme (France) based on 10 yr of monitoring of their physicochemical properties. Atmospheric Chemistry and Physics, 2014, 14, 1485-1506.	1.9	92
31	Study of Aerosol Particle Scavenging by Rain, Experiments and Modelling. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 169-174.	0.1	0
32	Geomorphic signatures on Brutsaert base flow recession analysis. Water Resources Research, 2013, 49, 5462-5472.	1.7	70
33	From random variability to ordered structures: a search for general synthesis in ecohydrology. Ecohydrology, 2013, 6, 333-342.	1.1	17
34	Changes in rainfall seasonality in the tropics. Nature Climate Change, 2013, 3, 811-815.	8.1	464
35	Small scale topography influence on the formation of three convective systems observed during COPS over the Vosges Mountains. Meteorologische Zeitschrift, 2013, 22, 395-411.	0.5	9
36	Study of Aerosol Scavenging by Rain in Case of a Radioactive Contamination of the Atmosphere. , 2012, , .		0

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37	An ecohydrological approach to predicting hillslope-scale vegetation patterns in dryland ecosystems. <i>Water Resources Research</i> , 2012, 48, .	1.7	25
38	On the role of human mobility in the spread of cholera epidemics: towards an epidemiological movement ecology. <i>Ecohydrology</i> , 2012, 5, 531-540.	1.1	21
39	Long-term features of cloud microbiology at the puy de Dôme (France). <i>Atmospheric Environment</i> , 2012, 56, 88-100.	1.9	138
40	How restructuring river connectivity changes freshwater fish biodiversity and biogeography. <i>Water Resources Research</i> , 2011, 47, .	1.7	40
41	Dynamics of wetland vegetation under multiple stresses: a case study of changes in sawgrass trait, structure, and productivity under coupled plant-soil-microbe dynamics. <i>Ecohydrology</i> , 2011, 4, 757-790.	1.1	3
42	Metabolic principles of river basin organization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 11751-11755.	3.3	30
43	Stochastic description of water table fluctuations in wetlands. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	23
44	Modeling belowground water table fluctuations in the Everglades. <i>Water Resources Research</i> , 2010, 46, .	1.7	7
45	Comparative study of ecohydrological streamflow probability distributions. <i>Water Resources Research</i> , 2010, 46, .	1.7	45
46	Daily streamflow analysis based on a two-scaled gamma pulse model. <i>Water Resources Research</i> , 2010, 46, .	1.7	32
47	The influence of aerosol particle number and hygroscopicity on the evolution of convective cloud systems and their precipitation: A numerical study based on the COPS observations on 12 August 2007. <i>Atmospheric Research</i> , 2010, 98, 40-56.	1.8	16
48	A review of our understanding of the aerosol-cloud interaction from the perspective of a bin resolved cloud scale modelling. <i>Atmospheric Research</i> , 2010, 97, 478-497.	1.8	76
49	The role of boundary layer aerosol particles for the development of deep convective clouds: A high-resolution 3D model with detailed (bin) microphysics applied to CRYSTAL-FACE. <i>Atmospheric Research</i> , 2009, 91, 62-78.	1.8	17
50	On neutral metacommunity patterns of river basins at different scales of aggregation. <i>Water Resources Research</i> , 2009, 45, .	1.7	24
51	River networks as ecological corridors: A complex systems perspective for integrating hydrologic, geomorphologic, and ecologic dynamics. <i>Water Resources Research</i> , 2009, 45, .	1.7	148
52	Ecohydrological optimization of pattern and processes in water-limited ecosystems: A trade-off-based hypothesis. <i>Water Resources Research</i> , 2009, 45, .	1.7	71
53	Ecohydrology of groundwater-dependent ecosystems: 1. Stochastic water table dynamics. <i>Water Resources Research</i> , 2009, 45, .	1.7	80
54	Ecohydrology of groundwater-dependent ecosystems: 2. Stochastic soil moisture dynamics. <i>Water Resources Research</i> , 2009, 45, .	1.7	49

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55	Nonlinear storage–discharge relations and catchment streamflow regimes. <i>Water Resources Research</i> , 2009, 45, .	1.7	100
56	Signatures of vegetational functional diversity in river basins. <i>Water Resources Research</i> , 2008, 44, .	1.7	6
57	Coupled hydrologic and vegetation dynamics in wetland ecosystems. <i>Water Resources Research</i> , 2008, 44, .	1.7	36
58	Ecohydrological model of flow duration curves and annual minima. <i>Water Resources Research</i> , 2008, 44, .	1.7	64
59	Stochastic coupling of rainfall and biomass dynamics. <i>Water Resources Research</i> , 2007, 43, .	1.7	12
60	Challenges in humid land ecohydrology: Interactions of water table and unsaturated zone with climate, soil, and vegetation. <i>Water Resources Research</i> , 2007, 43, .	1.7	109
61	Probabilistic structure of the distance between tributaries of given size in river networks. <i>Water Resources Research</i> , 2007, 43, .	1.7	13
62	Implications of rainfall temporal resolution for soil-moisture and transpiration modeling. <i>Transport in Porous Media</i> , 2007, 68, 37-67.	1.2	2
63	Toward a unified science of the Earth's surface: Opportunities for synthesis among hydrology, geomorphology, geochemistry, and ecology. <i>Water Resources Research</i> , 2006, 42, .	1.7	83
64	Tragedy of the commons in plant water use. <i>Water Resources Research</i> , 2006, 42, .	1.7	38
65	On the spatial and temporal sampling of soil moisture fields. <i>Water Resources Research</i> , 2006, 42, .	1.7	21
66	On the ecohydrology of structurally heterogeneous semiarid landscapes. <i>Water Resources Research</i> , 2006, 42, .	1.7	64
67	Non-uniqueness of evapotranspiration due to spatial heterogeneity of plant species. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2006, 462, 2359-2371.	1.0	5
68	A numerical study of the effects of the aerosol particle spectrum on the development of the ice phase and precipitation formation. <i>Atmospheric Research</i> , 2006, 80, 15-45.	1.8	21
69	Tree Canopy Effects on Simulated Water Stress in Southern African Savannas. <i>Ecosystems</i> , 2005, 8, 17-32.	1.6	34
70	Coupled Dynamics of Photosynthesis, Transpiration, and Soil Water Balance. Part I: Upscaling from Hourly to Daily Level. <i>Journal of Hydrometeorology</i> , 2004, 5, 546-558.	0.7	119
71	Soil Water Balance and Ecosystem Response to Climate Change. <i>American Naturalist</i> , 2004, 164, 625-632.	1.0	554
72	Feasible optimality of vegetation patterns in river basins. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	59

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73	Soil moisture and plant stress dynamics along the Kalahari precipitation gradient. <i>Journal of Geophysical Research</i> , 2003, 108, n/a-n/a.	3.3	63
74	Comparison of observed and modelled hailstone spectra during a severe storm over the Northern Pyrenean foothills. <i>Atmospheric Research</i> , 2003, 67-68, 685-703.	1.8	8
75	The influence of stochastic soil moisture dynamics on gaseous emissions of NO, N ₂ O, and N ₂ . <i>Hydrological Sciences Journal</i> , 2003, 48, 781-798.	1.2	21
76	HYDROLOGICALLY DRIVEN HIERARCHICAL COMPETITIONâ€“COLONIZATION MODELS: THE IMPACT OF INTERANNUAL CLIMATE FLUCTUATIONS. <i>Ecological Monographs</i> , 2003, 73, 207-222.	2.4	48
77	Tree-grass competition in space and time: Insights from a simple cellular automata model based on ecohydrological dynamics. <i>Water Resources Research</i> , 2002, 38, 18-1-18-15.	1.7	80
78	Ecohydrology-a challenging multidisciplinary research perspective / Ecohydrologie: une perspective stimulante de recherche multidisciplinaire. <i>Hydrological Sciences Journal</i> , 2002, 47, 811-821.	1.2	97
79	The ecohydrological role of soil texture in a water-limited ecosystem. <i>Water Resources Research</i> , 2001, 37, 2863-2872.	1.7	181
80	Intensive or extensive use of soil moisture: Plant strategies to cope with stochastic water availability. <i>Geophysical Research Letters</i> , 2001, 28, 4495-4497.	1.5	68
81	The Cloud Ice Mountain Experiment (CIME) 1998: experiment overview and modelling of the microphysical processes during the seeding by isentropic gas expansion. <i>Atmospheric Research</i> , 2001, 58, 231-265.	1.8	28
82	Behaviour of H ₂ O ₂ , NH ₃ , and black carbon in mixed-phase clouds during CIME. <i>Atmospheric Research</i> , 2001, 58, 315-336.	1.8	12
83	Tree-grass coexistence in Savannas: The role of spatial dynamics and climate fluctuations. <i>Geophysical Research Letters</i> , 1999, 26, 247-250.	1.5	84
84	Interaction of Aerosol Particles and Clouds. <i>Journals of the Atmospheric Sciences</i> , 1998, 55, 879-887.	0.6	46
85	The effect of the impaction scavenging efficiency on the wet deposition by a convective warm cloud. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1993, 45, 34-39.	0.8	6
86	Nonlinear Dynamics of Soil Moisture at Climate Scales: 1. Stochastic Analysis. <i>Water Resources Research</i> , 1991, 27, 1899-1906.	1.7	144
87	The scavenging of two different types of marine aerosol particles calculated using a two-dimensional detailed cloud model. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1991, 43, 301-321.	0.8	36
88	Theoretical Investigations of the Wet Deposition of Atmospheric Pollutants. , 0, , 45-70.		0