

# Attilio Castellarin

## List of Publications by Citations

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**Version:** 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

101  
papers

4,201  
citations

37  
h-index

63  
g-index

127  
ext. papers

5,005  
ext. citations

5.4  
avg, IF

5.4  
L-index

#	Paper	IF	Citations
101	Changing climate shifts timing of European floods. <i>Science</i> , <b>2017</b> , 357, 588-590	33.3	402
100	Changing climate both increases and decreases European river floods. <i>Nature</i> , <b>2019</b> , 573, 108-111	50.4	344
99	Twenty-three unsolved problems in hydrology (UPH) in a community perspective. <i>Hydrological Sciences Journal</i> , <b>2019</b> , 64, 1141-1158	3.5	259
98	Regional flow-duration curves: reliability for ungauged basins. <i>Advances in Water Resources</i> , <b>2004</b> , 27, 953-965	4.7	177
97	Assessing the effectiveness of hydrological similarity measures for flood frequency analysis. <i>Journal of Hydrology</i> , <b>2001</b> , 241, 270-285	6	158
96	Optimal Cross-Sectional Spacing in Preissmann Scheme 1D Hydrodynamic Models. <i>Journal of Hydraulic Engineering</i> , <b>2009</b> , 135, 96-105	1.8	102
95	A look at the links between drainage density and flood statistics. <i>Hydrology and Earth System Sciences</i> , <b>2009</b> , 13, 1019-1029	5.5	97
94	Analysis of the effects of levee heightening on flood propagation: example of the River Po, Italy. <i>Hydrological Sciences Journal</i> , <b>2009</b> , 54, 1007-1017	3.5	96
93	Predicting annual and long-term flow-duration curves in ungauged basins. <i>Advances in Water Resources</i> , <b>2007</b> , 30, 937-953	4.7	95
92	Assessing rating-curve uncertainty and its effects on hydraulic model calibration. <i>Hydrology and Earth System Sciences</i> , <b>2012</b> , 16, 1191-1202	5.5	92
91	Documentary evidence of past floods in Europe and their utility in flood frequency estimation. <i>Journal of Hydrology</i> , <b>2014</b> , 517, 963-973	6	88
90	Probability-weighted hazard maps for comparing different flood risk management strategies: a case study. <i>Natural Hazards</i> , <b>2009</b> , 50, 479-496	3	85
89	Uncertainty in hydrological signatures for gauged and ungauged catchments. <i>Water Resources Research</i> , <b>2016</b> , 52, 1847-1865	5.4	82
88	Probabilistic flood hazard mapping: effects of uncertain boundary conditions. <i>Hydrology and Earth System Sciences</i> , <b>2013</b> , 17, 3127-3140	5.5	73
87	The use of remote sensing-derived water surface data for hydraulic model calibration. <i>Remote Sensing of Environment</i> , <b>2014</b> , 149, 130-141	13.2	71
86	Data-driven catchment classification: application to the pub problem. <i>Hydrology and Earth System Sciences</i> , <b>2011</b> , 15, 1921-1935	5.5	69
85	Relationships between statistics of rainfall extremes and mean annual precipitation: an application for design-storm estimation in northern central Italy. <i>Hydrology and Earth System Sciences</i> , <b>2006</b> , 10, 589-601	5.5	69

84	Identification of coherent flood regions across Europe by using the longest streamflow records. <i>Journal of Hydrology</i> , <b>2015</b> , 528, 341-360	6	65
83	A stochastic index flow model of flow duration curves. <i>Water Resources Research</i> , <b>2004</b> , 40,	5.4	65
82	Evolution of flood risk over large areas: Quantitative assessment for the Po river. <i>Journal of Hydrology</i> , <b>2015</b> , 527, 809-823	6	61
81	Homogeneity testing: How homogeneous do heterogeneous cross-correlated regions seem?. <i>Journal of Hydrology</i> , <b>2008</b> , 360, 67-76	6	60
80	Application of GPR to the monitoring of river embankments. <i>Journal of Applied Geophysics</i> , <b>2010</b> , 71, 53-61	1.7	59
79	Probabilistic envelope curves for design flood estimation at ungauged sites. <i>Water Resources Research</i> , <b>2007</b> , 43,	5.4	58
78	Calibration of rainfall-runoff models in ungauged basins: A regional maximum likelihood approach. <i>Advances in Water Resources</i> , <b>2010</b> , 33, 1235-1242	4.7	55
77	Prediction of low-flow indices in ungauged basins through physiographical space-based interpolation. <i>Journal of Hydrology</i> , <b>2009</b> , 378, 272-280	6	53
76	Socio-hydrological modelling of flood-risk dynamics: comparing the resilience of green and technological systems. <i>Hydrological Sciences Journal</i> , <b>2017</b> , 62, 880-891	3.5	52
75	Estimating the index flood using indirect methods. <i>Hydrological Sciences Journal</i> , <b>2001</b> , 46, 399-418	3.5	52
74	Virtual laboratories: new opportunities for collaborative water science. <i>Hydrology and Earth System Sciences</i> , <b>2015</b> , 19, 2101-2117	5.5	49
73	Floodplain management strategies for flood attenuation in the river Po. <i>River Research and Applications</i> , <b>2011</b> , 27, 1037-1047	2.3	47
72	Development and assessment of uni- and multivariable flood loss models for Emilia-Romagna (Italy). <i>Natural Hazards and Earth System Sciences</i> , <b>2018</b> , 18, 2057-2079	3.9	46
71	Effects of land-use changes on the hydrologic response of reclamation systems. <i>Physics and Chemistry of the Earth</i> , <b>2005</b> , 30, 561-574	3	46
70	Assessing the reliability of regional depth-duration-frequency equations for gaged and ungaged sites. <i>Water Resources Research</i> , <b>2003</b> , 39,	5.4	46
69	Smooth regional estimation of low-flow indices: physiographical space based interpolation and top-kriging. <i>Hydrology and Earth System Sciences</i> , <b>2011</b> , 15, 715-727	5.5	46
68	Panta Rhei 2013-2015: global perspectives on hydrology, society and change. <i>Hydrological Sciences Journal</i> , <b>2016</b> , 1-18	3.5	44
67	Regional parent flood frequency distributions in Europe [Part 1: Is the GEV model suitable as a pan-European parent?]. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 4381-4389	5.5	42

66	Adaptation of water resources systems to changing society and environment: a statement by the International Association of Hydrological Sciences. <i>Hydrological Sciences Journal</i> , <b>2016</b> , 61, 2803-2817	3-5	40
65	Evolutionary leap in large-scale flood risk assessment needed. <i>Wiley Interdisciplinary Reviews: Water</i> , <b>2018</b> , 5, e1266	5-7	38
64	Testing empirical and synthetic flood damage models: the case of Italy. <i>Natural Hazards and Earth System Sciences</i> , <b>2019</b> , 19, 661-678	3-9	37
63	Comparing 2D capabilities of HEC-RAS and LISFLOOD-FP on complex topography. <i>Hydrological Sciences Journal</i> , <b>2019</b> , 64, 1769-1782	3-5	36
62	Identifying robust large-scale flood risk mitigation strategies: A quasi-2D hydraulic model as a tool for the Po river. <i>Physics and Chemistry of the Earth</i> , <b>2011</b> , 36, 299-308	3	36
61	Topological and canonical kriging for design flood prediction in ungauged catchments: an improvement over a traditional regional regression approach?. <i>Hydrology and Earth System Sciences</i> , <b>2013</b> , 17, 1575-1588	5-5	34
60	Regional parent flood frequency distributions in Europe [Part 2: Climate and scale controls. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 4391-4401	5-5	33
59	Probabilistic behavior of a regional envelope curve. <i>Water Resources Research</i> , <b>2005</b> , 41,	5-4	33
58	Geostatistical prediction of flow duration curves in an index-flow framework. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 3801-3816	5-5	31
57	Probabilistic envelope curves for extreme rainfall events. <i>Journal of Hydrology</i> , <b>2009</b> , 378, 263-271	6	31
56	Regional flow duration curves: Geostatistical techniques versus multivariate regression. <i>Advances in Water Resources</i> , <b>2016</b> , 96, 11-22	4-7	27
55	Assessing the effects of land-use changes on annual average gross erosion. <i>Hydrology and Earth System Sciences</i> , <b>2002</b> , 6, 255-265	5-5	27
54	Estimating the flood frequency distribution at seasonal and annual time scales. <i>Hydrology and Earth System Sciences</i> , <b>2012</b> , 16, 4651-4660	5-5	25
53	Isla Hispaniola: A trans-boundary flood risk mitigation plan. <i>Physics and Chemistry of the Earth</i> , <b>2009</b> , 34, 209-218	3	25
52	Regional prediction of flow-duration curves using a three-dimensional kriging. <i>Journal of Hydrology</i> , <b>2014</b> , 513, 179-191	6	22
51	Investigating the uncertainty of satellite altimetry products for hydrodynamic modelling. <i>Hydrological Processes</i> , <b>2015</b> , 29, 4908-4918	3-3	22
50	Prediction of flow duration curves in ungauged basins		22
49	A European Flood Database: facilitating comprehensive flood research beyond administrative boundaries. <i>Proceedings of the International Association of Hydrological Sciences</i> , <b>370</b> , 89-95		22

48	A web application for hydrogeomorphic flood hazard mapping. <i>Environmental Modelling and Software</i> , <b>2019</b> , 118, 172-186	5.2	21
47	Characterizing water surface elevation under different flow conditions for the upcoming SWOT mission. <i>Journal of Hydrology</i> , <b>2018</b> , 561, 848-861	6	21
46	Extreme rainstorms: Comparing regional envelope curves to stochastically generated events. <i>Water Resources Research</i> , <b>2012</b> , 48,	5.4	20
45	Floodplain management in Africa: Large scale analysis of flood data. <i>Physics and Chemistry of the Earth</i> , <b>2011</b> , 36, 292-298	3	20
44	Statistical Hydrology <b>2011</b> , 479-517		19
43	Deriving probabilistic regional envelope curves with two pooling methods. <i>Journal of Hydrology</i> , <b>2010</b> , 380, 14-26	6	19
42	Hydro-power production and fish habitat suitability: Assessing impact and effectiveness of ecological flows at regional scale. <i>Advances in Water Resources</i> , <b>2018</b> , 116, 29-39	4.7	15
41	Climate-change potential effects on the hydrological regime of freshwater springs in the Italian Northern Apennines. <i>Science of the Total Environment</i> , <b>2018</b> , 622-623, 337-348	10.2	14
40	Multivariate probabilistic regional envelopes of extreme floods. <i>Journal of Hydrology</i> , <b>2007</b> , 336, 376-390		14
39	An assessment of exceedance probabilities of envelope curves. <i>Water Resources Research</i> , <b>2007</b> , 43,	5.4	13
38	An analysis of change in alpine annual maximum discharges: implications for the selection of design discharges. <i>Hydrological Processes</i> , <b>2012</b> , 26, 1517-1526	3.3	12
37	Flood risk mitigation in developing countries: deriving accurate topographic data for remote areas under severe time and economic constraints. <i>Journal of Flood Risk Management</i> , <b>2015</b> , 8, 301-314	3.1	11
36	Calibration of a rainfall-runoff model at regional scale by optimising river discharge statistics: Performance analysis for the average/low flow regime. <i>Physics and Chemistry of the Earth</i> , <b>2012</b> , 42-44, 77-84	3	11
35	Is anthropogenic land subsidence a possible driver of riverine flood-hazard dynamics? A case study in Ravenna, Italy. <i>Hydrological Sciences Journal</i> , <b>2017</b> , 62, 2440-2455	3.5	9
34	Exposure and vulnerability estimation for modelling flood losses to commercial assets in Europe. <i>Science of the Total Environment</i> , <b>2020</b> , 737, 140011	10.2	9
33	Prediction of streamflow regimes over large geographical areas: interpolated flow-duration curves for the Danube region. <i>Hydrological Sciences Journal</i> , <b>2018</b> , 63, 845-861	3.5	9
32	Safer_RAIN: A DEM-Based Hierarchical Filling-&Spilling Algorithm for Pluvial Flood Hazard Assessment and Mapping across Large Urban Areas. <i>Water (Switzerland)</i> , <b>2020</b> , 12, 1514	3	8
31	Effects of intersite dependence of nested catchment structures on probabilistic regional envelope curves. <i>Hydrology and Earth System Sciences</i> , <b>2009</b> , 13, 1699-1712	5.5	8

30	Predictive Modeling of Envelope Flood Extents Using Geomorphic and Climatic-Hydrologic Catchment Characteristics. <i>Water Resources Research</i> , <b>2020</b> , 56, e2019WR026453	5-4	8
29	A look at the links between drainage density and flood statistics		7
28	Levee Breaching: A New Extension to the LISFLOOD-FP Model. <i>Water (Switzerland)</i> , <b>2020</b> , 12, 942	3	6
27	A probabilistic approach to estimating residential losses from different flood types. <i>Natural Hazards</i> , <b>2021</b> , 105, 2569-2601	3	6
26	On the quest for a pan-European flood frequency distribution: effect of scale and climate		5
25	A geostatistical data-assimilation technique for enhancing macro-scale rainfall-runoff simulations. <i>Hydrology and Earth System Sciences</i> , <b>2018</b> , 22, 4633-4648	5-5	5
24	At-site and regional assessment of the possible presence of non-stationarity in extreme rainfall in northern Italy. <i>Physics and Chemistry of the Earth</i> , <b>2001</b> , 26, 705-710		4
23	Large-scale stochastic flood hazard analysis applied to the Po River. <i>Natural Hazards</i> , <b>2020</b> , 104, 2027-2049		4
22	Stationary vs non-stationary modelling of flood frequency distribution across northwest England. <i>Hydrological Sciences Journal</i> , <b>2021</b> , 66, 729-744	3-5	4
21	Changes in seasonality and magnitude of sub-daily rainfall extremes in Emilia-Romagna (Italy) and potential influence on regional rainfall frequency estimation. <i>Journal of Hydrology: Regional Studies</i> , <b>2020</b> , 32, 100751	3-6	3
20	Comparative analysis of scalar upper tail indicators. <i>Hydrological Sciences Journal</i> , <b>2020</b> , 65, 1625-1639	3-5	3
19	Invigorating hydrological research through journal publications. <i>Hydrological Sciences Journal</i> , <b>2018</b> , 63, 1113-1117	3-5	3
18	Geostatistical prediction of flow-duration curves		3
17	Virtual laboratories: new opportunities for collaborative water science		3
16	Assessing rating-curve uncertainty and its effects on hydraulic model calibration		3
15	Effects of anthropogenic land-subsidence on inundation dynamics: the case study of Ravenna, Italy. <i>Proceedings of the International Association of Hydrological Sciences</i> , <b>373</b> , 161-166		3
14	Comparison of two modelling strategies for 2D large-scale flood simulations. <i>Environmental Modelling and Software</i> , <b>2021</b> , 146, 105225	5-2	3
13	Geostatistical regionalization of low-flow indices: PSBI and Top-Kriging		2

12	Effects of rating-curve uncertainty on probabilistic flood mapping		2
11	Simplified graphical tools for assessing flood-risk change over large flood-prone areas. <i>Proceedings of the International Association of Hydrological Sciences</i> ,370, 209-215		2
10	Climate, orography and scale controls on flood frequency in Triveneto (Italy). <i>Proceedings of the International Association of Hydrological Sciences</i> ,373, 95-100		2
9	Joint editorial: Invigorating hydrological research through journal publications. <i>Hydrology and Earth System Sciences</i> , <b>2018</b> , 22, 5735-5739	5.5	2
8	Data-driven catchment classification: application to the PUB problem		1
7	Topological and canonical kriging for design-flood prediction in ungauged catchments: an improvement over a traditional regional regression approach?		1
6	A comparison between generalized least squares regression and top-kriging for homogeneous cross-correlated flood regions. <i>Hydrological Sciences Journal</i> , <b>2021</b> , 66, 565-579	3.5	1
5	Machine-learning blends of geomorphic descriptors: value and limitations for flood hazard assessment across large floodplains. <i>Natural Hazards and Earth System Sciences</i> , <b>2022</b> , 22, 1469-1486	3.9	1
4	Hydrologic Record Events <b>2019</b> , 491-536		0
3	Pluvial flooding: High-resolution stochastic hazard mapping in urban areas by using fast-processing DEM-based algorithms. <i>Journal of Hydrology</i> , <b>2022</b> , 608, 127649	6	0
2	Sewer Flow Prediction at a Large Urban Scale: Influence of Radar Rainfall Spatial Resolution. <i>Green Energy and Technology</i> , <b>2019</b> , 794-798	0.6	
1	Joint editorial: Invigorating hydrological research through journal publications. <i>Proceedings of the International Association of Hydrological Sciences</i> ,380, 3-8		