Attilio Castellarin

List of Publications by Year
in descending order

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96 papers	5,898 citations	76294 40 h-index	82499 72 g-index

127 all docs	127 docs citations	127 times ranked	5327 citing authors

#	Article	IF	Citations
1	Changing climate both increases and decreases European river floods. Nature, 2019, 573, 108-111.	13.7	639
2	Changing climate shifts timing of European floods. Science, 2017, 357, 588-590.	6.0	584
3	Twenty-three unsolved problems in hydrology (UPH) â€“ a community perspective. Hydrological Sciences Journal, 2019, 64, 1141-1158.	1.2	474
4	Regional flow-duration curves: reliability for ungauged basins. Advances in Water Resources, 2004, 27, 953-965.	1.7	197
5	Assessing the effectiveness of hydrological similarity measures for flood frequency analysis. Journal of Hydrology, 2001, 241, 270-285.	2.3	181
6	A look at the links between drainage density and flood statistics. Hydrology and Earth System Sciences, 2009, 13, 1019-1029.	1.9	128
7	Optimal Cross-Sectional Spacing in Preissmann Scheme 1D Hydrodynamic Models. Journal of Hydraulic Engineering, 2009, 135, 96-105.	0.7	123
8	Analysis of the effects of levee heightening on flood propagation: example of the River Po, Italy. Hydrological Sciences Journal, 2009, 54, 1007-1017.	1.2	121
9	Assessing rating-curve uncertainty and its effects on hydraulic model calibration. Hydrology and Earth System Sciences, 2012, 16, 1191-1202.	1.9	120
10	Documentary evidence of past floods in Europe and their utility in flood frequency estimation. Journal of Hydrology, 2014, 517, 963-973.	2.3	116
11	Predicting annual and long-term flow-duration curves in ungauged basins. Advances in Water Resources, 2007, 30, 937-953.	1.7	113
12	Uncertainty in hydrological signatures for gauged and ungauged catchments. Water Resources Research, 2016, 52, 1847-1865.	1.7	104
13	Probability-weighted hazard maps for comparing different flood risk management strategies: a case study. Natural Hazards, 2009, 50, 479-496.	1.6	100
14	Probabilistic flood hazard mapping: effects of uncertain boundary conditions. Hydrology and Earth System Sciences, 2013, 17, 3127-3140.	1.9	100
15	The use of remote sensing-derived water surface data for hydraulic model calibration. Remote Sensing of Environment, 2014, 149, 130-141.	4.6	90
16	Comparing 2D capabilities of HEC-RAS and LISFLOOD-FP on complex topography. Hydrological Sciences Journal, 2019, 64, 1769-1782.	1.2	88
17	Application of GPR to the monitoring of river embankments. Journal of Applied Geophysics, 2010, 71, 53-61.	0.9	85
18	Data-driven catchment classification: application to the pub problem. Hydrology and Earth System Sciences, 2011, 15, 1921-1935.	1.9	84

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19	A stochastic index flow model of flow duration curves. Water Resources Research, 2004, 40, .	1.7	82
20	Identification of coherent flood regions across Europe by using the longest streamflow records. Journal of Hydrology, 2015, 528, 341-360.	2.3	79
21	Evolution of flood risk over large areas: Quantitative assessment for the Po river. Journal of Hydrology, 2015, 527, 809-823.	2.3	78
22	Relationships between statistics of rainfall extremes and mean annual precipitation: an application for design-storm estimation in northern central Italy. Hydrology and Earth System Sciences, 2006, 10, 589-601.	1.9	77
23	Development and assessment of uni- and multivariable flood loss models for Emilia-Romagna (Italy). Natural Hazards and Earth System Sciences, 2018, 18, 2057-2079.	1.5	76
24	Socio-hydrological modelling of flood-risk dynamics: comparing the resilience of green and technological systems. Hydrological Sciences Journal, 2017, 62, 880-891.	1.2	72
25	Effects of land-use changes on the hydrologic response of reclamation systems. Physics and Chemistry of the Earth, 2005, 30, 561-574.	1.2	71
26	Probabilistic envelope curves for design flood estimation at ungauged sites. Water Resources Research, 2007, 43, .	1.7	68
27	Homogeneity testing: How homogeneous do heterogeneous cross-correlated regions seem?. Journal of Hydrology, 2008, 360, 67-76.	2.3	68
28	Testing empirical and synthetic flood damage models: the case of Italy. Natural Hazards and Earth System Sciences, 2019, 19, 661-678.	1.5	67
29	Virtual laboratories: new opportunities for collaborative water science. Hydrology and Earth System Sciences, 2015, 19, 2101-2117.	1.9	63
30	Calibration of rainfall-runoff models in ungauged basins: A regional maximum likelihood approach. Advances in Water Resources, 2010, 33, 1235-1242.	1.7	62
31	Estimating the index flood using indirect methods. Hydrological Sciences Journal, 2001, 46, 399-418.	1.2	60
32	Regional parent flood frequency distributions in Europe â€“ Part 1: Is the GEV model suitable as a pan-European parent?. Hydrology and Earth System Sciences, 2014, 18, 4381-4389.	1.9	59
33	Prediction of low-flow indices in ungauged basins through physiographical space-based interpolation. Journal of Hydrology, 2009, 378, 272-280.	2.3	58
34	Floodplain management strategies for flood attenuation in the river Po. River Research and Applications, 2011, 27, 1037-1047.	0.7	58
35	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.	1.2	57
36	Smooth regional estimation of low-flow indices: physiographical space based interpolation and top-kriging. Hydrology and Earth System Sciences, 2011, 15, 715-727.	1.9	54

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37	Panta Rhei 2013â€“2015: global perspectives on hydrology, society and change. Hydrological Sciences Journal, 0, , 1-18.	1.2	53
38	Assessing the reliability of regional depth-duration-frequency equations for gaged and ungaged sites. Water Resources Research, 2003, 39, .	1.7	52
39	Evolutionary leap in largeâ€scale flood risk assessment needed. Wiley Interdisciplinary Reviews: Water, 2018, 5, e1266.	2.8	50
40	Regional parent flood frequency distributions in Europe â€“ Part 2: Climate and scale controls. Hydrology and Earth System Sciences, 2014, 18, 4391-4401.	1.9	47
41	Identifying robust large-scale flood risk mitigation strategies: A quasi-2D hydraulic model as a tool for the Po river. Physics and Chemistry of the Earth, 2011, 36, 299-308.	1.2	46
42	Topological and canonical kriging for design flood prediction in ungauged catchments: an improvement over a traditional regional regression approach?. Hydrology and Earth System Sciences, 2013, 17, 1575-1588.	1.9	42
43	Probabilistic behavior of a regional envelope curve. Water Resources Research, 2005, 41, .	1.7	41
44	Estimating the flood frequency distribution at seasonal and annual time scales. Hydrology and Earth System Sciences, 2012, 16, 4651-4660.	1.9	37
45	Geostatistical prediction of flowâ€“duration curves in an index-flow framework. Hydrology and Earth System Sciences, 2014, 18, 3801-3816.	1.9	37
46	Probabilistic envelope curves for extreme rainfall events. Journal of Hydrology, 2009, 378, 263-271.	2.3	36
47	Isla Hispaniola: A trans-boundary flood risk mitigation plan. Physics and Chemistry of the Earth, 2009, 34, 209-218.	1.2	35
48	Prediction of flow duration curves in ungauged basins. , 2013, , 135-162.		35
49	Regional flow duration curves: Geostatistical techniques versus multivariate regression. Advances in Water Resources, 2016, 96, 11-22.	1.7	35
50	Regional prediction of flow-duration curves using a three-dimensional kriging. Journal of Hydrology, 2014, 513, 179-191.	2.3	33
51	Assessing the effects of land-use changes on annual average gross erosion. Hydrology and Earth System Sciences, 2002, 6, 255-265.	1.9	32
52	A European Flood Database: facilitating comprehensive flood research beyond administrative boundaries. Proceedings of the International Association of Hydrological Sciences, 0, 370, 89-95.	1.0	32
53	Statistical Hydrology. , 2011, , 479-517.		29
54	Floodplain management in Africa: Large scale analysis of flood data. Physics and Chemistry of the Earth, 2011, 36, 292-298.	1.2	29

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55	A web application for hydrogeomorphic flood hazard mapping. Environmental Modelling and Software, 2019, 118, 172-186.	1.9	29
56	Investigating the uncertainty of satellite altimetry products for hydrodynamic modelling. Hydrological Processes, 2015, 29, 4908-4918.	1.1	24
57	Characterizing water surface elevation under different flow conditions for the upcoming SWOT mission. Journal of Hydrology, 2018, 561, 848-861.	2.3	24
58	Deriving probabilistic regional envelope curves with two pooling methods. Journal of Hydrology, 2010, 380, 14-26.	2.3	23
59	Extreme rainstorms: Comparing regional envelope curves to stochastically generated events. Water Resources Research, 2012, 48, .	1.7	23
60	Stationary vs non-stationary modelling of flood frequency distribution across northwest England. Hydrological Sciences Journal, 2021, 66, 729-744.	1.2	23
61	Hydro-power production and fish habitat suitability: Assessing impact and effectiveness of ecological flows at regional scale. Advances in Water Resources, 2018, 116, 29-39.	1.7	22
62	Safer_RAIN: A DEM-Based Hierarchical Filling-&-Spilling Algorithm for Pluvial Flood Hazard Assessment and Mapping across Large Urban Areas. Water (Switzerland), 2020, 12, 1514.	1.2	22
63	Exposure and vulnerability estimation for modelling flood losses to commercial assets in Europe. Science of the Total Environment, 2020, 737, 140011.	3.9	22
64	A probabilistic approach to estimating residential losses from different flood types. Natural Hazards, 2021, 105, 2569-2601.	1.6	20
65	Levee Breaching: A New Extension to the LISFLOOD-FP Model. Water (Switzerland), 2020, 12, 942.	1.2	19
66	Multivariate probabilistic regional envelopes of extreme floods. Journal of Hydrology, 2007, 336, 376-390.	2.3	18
67	Climate-change potential effects on the hydrological regime of freshwater springs in the Italian Northern Apennines. Science of the Total Environment, 2018, 622-623, 337-348.	3.9	18
68	Calibration of a rainfallâ€“runoff model at regional scale by optimising river discharge statistics: Performance analysis for the average/low flow regime. Physics and Chemistry of the Earth, 2012, 42-44, 77-84.	1.2	16
69	Predictive Modeling of Envelope Flood Extents Using Geomorphic and Climaticâ€Hydrologic Catchment Characteristics. Water Resources Research, 2020, 56, e2019WR026453.	1.7	16
70	Comparison of two modelling strategies for 2D large-scale flood simulations. Environmental Modelling and Software, 2021, 146, 105225.	1.9	16
71	An assessment of exceedance probabilities of envelope curves. Water Resources Research, 2007, 43, .	1.7	15
72	Is anthropogenic land subsidence a possible driver of riverine flood-hazard dynamics? A case study in Ravenna, Italy. Hydrological Sciences Journal, 2017, 62, 2440-2455.	1.2	15

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73	An analysis of change in alpine annual maximum discharges: implications for the selection of design discharges. Hydrological Processes, 2012, 26, 1517-1526.	1.1	14
74	Flood risk mitigation in developing countries: deriving accurate topographic data for remote areas under severe time and economic constraints. Journal of Flood Risk Management, 2015, 8, 301-314.	1.6	14
75	Comparative analysis of scalar upper tail indicators. Hydrological Sciences Journal, 2020, 65, 1625-1639.	1.2	14
76	Prediction of streamflow regimes over large geographical areas: interpolated flowâ€“duration curves for the Danube region. Hydrological Sciences Journal, 2018, 63, 845-861.	1.2	13
77	Pluvial flooding: High-resolution stochastic hazard mapping in urban areas by using fast-processing DEM-based algorithms. Journal of Hydrology, 2022, 608, 127649.	2.3	11
78	Effects of intersite dependence of nested catchment structures on probabilistic regional envelope curves. Hydrology and Earth System Sciences, 2009, 13, 1699-1712.	1.9	10
79	Scientific debate of Panta Rhei research â€“ how to advance our knowledge of changes in hydrology and society?. Hydrological Sciences Journal, 0, , 1-3.	1.2	7
80	A geostatistical data-assimilation technique for enhancing macro-scale rainfallâ€“runoff simulations. Hydrology and Earth System Sciences, 2018, 22, 4633-4648.	1.9	7
81	Changes in seasonality and magnitude of sub-daily rainfall extremes in Emilia-Romagna (Italy) and potential influence on regional rainfall frequency estimation. Journal of Hydrology: Regional Studies, 2020, 32, 100751.	1.0	7
82	At-site and regional assessment of the possible presence of non-stationarity in extreme rainfall in northern Italy. Physics and Chemistry of the Earth, 2001, 26, 705-710.	0.3	6
83	Large-scale stochastic flood hazard analysis applied to the Po River. Natural Hazards, 2020, 104, 2027-2049.	1.6	6
84	Invigorating Hydrological Research Through Journal Publications. Water Resources Research, 2020, 56, .	1.7	5
85	A comparison between generalized least squares regression and top-kriging for homogeneous cross-correlated flood regions. Hydrological Sciences Journal, 2021, 66, 565-579.	1.2	5
86	Invigorating hydrological research through journal publications. Hydrological Sciences Journal, 2018, 63, 1113-1117.	1.2	4
87	Machine-learning blends of geomorphic descriptors: value and limitations for flood hazard assessment across large floodplains. Natural Hazards and Earth System Sciences, 2022, 22, 1469-1486.	1.5	4
88	Joint editorial: Invigorating hydrological research through journal publications. Hydrology and Earth System Sciences, 2018, 22, 5735-5739.	1.9	3
89	Simplified graphical tools for assessing flood-risk change over large flood-prone areas. Proceedings of the International Association of Hydrological Sciences, 0, 370, 209-215.	1.0	3
90	Effects of anthropogenic land-subsidence on inundation dynamics: the case study of Ravenna, Italy. Proceedings of the International Association of Hydrological Sciences, 0, 373, 161-166.	1.0	3

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91	RIO SOLIETTE (HAITI): AN INTERNATIONAL INITIATIVE FOR FLOOD-HAZARD ASSESSMENT AND MITIGATION. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XL-5/W3, 159-165.	0.2	2
92	Climate, orography and scale controls on flood frequency in Triveneto (Italy). Proceedings of the International Association of Hydrological Sciences, 0, 373, 95-100.	1.0	2
93	Should auld acquaintance be forgot? Comment on â€œFarewell,HSJ!â€”address from the retiring editorâ€•by Z.W. Kundzewicz. Hydrological Sciences Journal, 0, , 1-2.	1.2	1
94	Editorial: River basin hydrology and natural hazards: monitoring, prediction and prevention. Hydrology Research, 2017, 48, 613-615.	1.1	0
95	Sewer Flow Prediction at a Large Urban Scale: Influence of Radar Rainfall Spatial Resolution. Green Energy and Technology, 2019, , 794-798.	0.4	0
96	Joint editorial: Invigorating hydrological research through journal publications. Proceedings of the International Association of Hydrological Sciences, 0, 380, 3-8.	1.0	0