Koen Blanckaert

List of Publications by Citations

58 papers	**2,335** citations	**29** h-index	**48** g-index
60 ext. papers	**2,673** ext. citations	**3.2** avg, IF	**5.4** L-index

#	Paper	IF	Citations
58	Secondary flow in sharp open-channel bends. *Journal of Fluid Mechanics*, **2004**, 498, 353-380	3.7	202
57	Mean Flow and Turbulence in Open-Channel Bend. *Journal of Hydraulic Engineering*, **2001**, 127, 835-847	1.8	144
56	Momentum Transport in Sharp Open-Channel Bends. *Journal of Hydraulic Engineering*, **2004**, 130, 186-198	1.8	114
55	Nonlinear modeling of mean flow redistribution in curved open channels. *Water Resources Research*, **2003**, 39,	5.4	110
54	Hydrodynamic processes in sharp meander bends and their morphological implications. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		102
53	Saturation of curvature-induced secondary flow, energy losses, and turbulence in sharp open-channel bends: Laboratory experiments, analysis, and modeling. *Journal of Geophysical Research*, **2009**, 114,		98
52	Meander dynamics: A nonlinear model without curvature restrictions for flow in open-channel bends. *Journal of Geophysical Research*, **2010**, 115,		94
51	Flow and sediment dynamics in channel confluences. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		92
50	Means of noise reduction in acoustic turbulence measurements. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2006**, 44, 3-17	1.9	90
49	Flow and bathymetry in sharp open-channel bends: Experiments and predictions. *Water Resources Research*, **2008**, 44,	5.4	89
48	Flow separation at the inner (convex) and outer (concave) banks of constant-width and widening open-channel bends. *Earth Surface Processes and Landforms*, **2013**, 38, 696-716	3.7	75
47	Topographic steering, flow recirculation, velocity redistribution, and bed topography in sharp meander bends. *Water Resources Research*, **2010**, 46,	5.4	70
46	Influence of shallowness, bank inclination and bank roughness on the variability of flow patterns and boundary shear stress due to secondary currents in straight open-channels. *Advances in Water Resources*, **2010**, 33, 1062-1074	4.7	68
45	Processes governing the flow redistribution in sharp river bends. *Geomorphology*, **2012**, 163-164, 45-55	4.3	63
44	Large-eddy simulation of a mildly curved open-channel flow. *Journal of Fluid Mechanics*, **2009**, 630, 413-442	3.7	61
43	Optimization of water quality monitoring network in a large river by combining measurements, a numerical model and matter-element analyses. *Journal of Environmental Management*, **2012**, 110, 116-24	7.9	46
42	Flow processes near smooth and rough (concave) outer banks in curved open channels. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		46

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41	Large-eddy simulation of a curved open-channel flow over topography. *Physics of Fluids*, **2010**, 22, 075108	3.4	46
40	Turbulence structure in sharp open-channel bends. *Journal of Fluid Mechanics*, **2005**, 536, 27-48	3.7	45
39	Analysis of the role of turbulence in curved open-channel flow at different water depths by means of experiments, LES and RANS. *Journal of Turbulence*, **2010**, 11, N12	2.1	43
38	Turbulence characteristics in sharp open-channel bends. *Physics of Fluids*, **2005**, 17, 055102	4.4	42
37	Adapting the operation of two cascaded reservoirs for ecological flow requirement of a de-watered river channel due to diversion-type hydropower stations. *Ecological Modelling*, **2013**, 252, 266-272	3	41
36	Meander dynamics: A reduced-order nonlinear model without curvature restrictions for flow and bed morphology. *Journal of Geophysical Research F: Earth Surface*, **2013**, 118, 1118-1131	3.8	41
35	Flow separation at convex banks in open channels. *Journal of Fluid Mechanics*, **2015**, 779, 432-467	3.7	39
34	Optimal pipe replacement strategy based on break rate prediction through genetic programming for water distribution network. *Journal of Hydro-Environment Research*, **2013**, 7, 134-140	2.3	35
33	Hydromorphological implications of local tributary widening for river rehabilitation. *Water Resources Research*, **2012**, 48,	5.4	33
32	Investigation on the Suitability of Two-Dimensional Depth-Averaged Models for Bend-Flow Simulation. *Journal of Hydraulic Engineering*, **2003**, 129, 597-612	1.8	32
31	Hydrodynamic processes, sediment erosion mechanisms, and Reynolds-number-induced scale effects in an open channel bend of strong curvature with flat bathymetry. *Journal of Geophysical Research F: Earth Surface*, **2013**, 118, 2308-2324	3.8	30
30	Reduction of Bend Scour by an Outer Bank Footing: Footing Design and Bed Topography. *Journal of Hydraulic Engineering*, **2007**, 133, 139-147	1.8	30
29	Water Saving and Energy Reduction through Pressure Management in Urban Water Distribution Networks. *Water Resources Management*, **2014**, 28, 3715-3726	3.7	26
28	Reduction of Bend Scour by an Outer Bank Footing: Flow Field and Turbulence. *Journal of Hydraulic Engineering*, **2009**, 135, 361-368	1.8	23
27	Dynamic investigation of nutrient consumption and injection strategy in microbial enhanced oil recovery (MEOR) by means of large-scale experiments. *Applied Microbiology and Biotechnology*, **2015**, 99, 6551-61	5.7	22
26	Redistribution of Velocity and Bed-Shear Stress in Straight and Curved Open Channels by Means of a Bubble Screen: Laboratory Experiments. *Journal of Hydraulic Engineering*, **2008**, 134, 184-195	1.8	22
25	Reduction of bend scour with an air-bubble screen morphology and flow patterns. *International Journal of Sediment Research*, **2013**, 28, 15-23	3	21
24	A parametrical study on secondary flow in sharp open-channel bends: experiments and theoretical modelling. *Journal of Hydro-Environment Research*, **2016**, 13, 1-13	2.3	19

23	Adaptation and multiple parameter optimization of the simulation model SALMO as prerequisite for scenario analysis on a shallow eutrophic Lake. *Ecological Modelling*, **2014**, 273, 109-116	3	18
22	Riparian vegetation dynamics: insight provided by a process-based model, a statistical model and field data. *Ecohydrology*, **2013**, 6, 567-585	2.5	17
21	The role of turbulence in the hydraulic environment of benthic invertebrates. *Ecohydrology*, **2013**, 6, 700-712	2.5	17
20	An investigation on the outer bank cell of secondary flow in channel bends. *Journal of Hydro-Environment Research*, **2018**, 18, 1-11	2.3	14
19	Optimizing the operation of the Qingshitan Reservoir in the Lijiang River for multiple human interests and quasi-natural flow maintenance. *Journal of Environmental Sciences*, **2012**, 24, 1923-8	6.4	14
18	Geometry of meandering and braided gravel-bed threads from the Bayanbulak Grassland, Tianshan, P.R.China. *Earth Surface Dynamics*, **2016**, 4, 273-283	3.8	12
17	Measuring Bedload Sediment Transport with an Acoustic Doppler Velocity Profiler. *Journal of Hydraulic Engineering*, **2017**, 143, 04017008	1.8	11
16	Fish (Spinibarbus hollandi) dynamics in relation to changing hydrological conditions: physical modelling, individual-based numerical modelling, and case study. *Ecohydrology*, **2013**, 6, 586-597	2.5	11
15	Modeling Flow Pattern and Evolution of Meandering Channels with a Nonlinear Model. *Water (Switzerland)*, **2016**, 8, 418	3	10
14	Improvement of Acoustic Doppler Velocimetry in steady and unsteady turbulent open-channel flows by means of seeding with hydrogen bubbles. *Flow Measurement and Instrumentation*, **2008**, 19, 215-221	2.2	9
13	Bend-Flow Simulation Using 2D Depth-Averaged Model. *Journal of Hydraulic Engineering*, **2001**, 127, 167-170		9
12	Generalized Likelihood Uncertainty Estimation Method in Uncertainty Analysis of Numerical Eutrophication Models: Take BLOOM as an Example. *Mathematical Problems in Engineering*, **2013**, 2013, 1-9	1.1	7
11	Local tributary widening for river rehabilitation. *Ecohydrology*, **2016**, 9, 204-217	2.5	7
10	Influencing Flow Patterns and Bed Morphology in Open Channels and Rivers by Means of an Air-Bubble Screen. *Journal of Hydraulic Engineering*, **2015**, 141, 04014070	1.8	6
9	Ecologically-friendly operation scheme for the Jinping cascaded reservoirs in the Yalongjiang River, China. *Frontiers of Earth Science*, **2014**, 8, 282-290	1.7	6
8	Study of factors influencing the invasion of Golden Mussels (Limnoperna fortunei) in water transfer projects. *Aquatic Ecosystem Health and Management*, **2021**, 22,	1.4	4
7	Effects of large wood on morphology, flow and turbulence in a Lowland River **2014**, 2493-2501		2
6	Hydro-sedimentological processes in meandering rivers **2018**, 297-319		2

List of Publications

5	A field investigation on debris flows in the incised Tongde sedimentary basin on the northeastern edge of the Tibetan Plateau. *Catena*, **2022**, 208, 105727	5.8	2
4	Ecohydraulics: linkages between hydraulics, morphodynamics and ecological processes in rivers. *Ecohydrology*, **2013**, 6, 507-510	2.5	1
3	Secondary Flow and Flow Redistribution in Two Sharp Bends on the Middle Yangtze River. *Water Resources Research*, **2021**, 57, e2020WR028534	5.4	1
2	Discussion of "Three-dimensional numerical study of flow structure in channel confluences"Appears in the Canadian Journal of Civil Engineering, 37(5): 772–81.. *Canadian Journal of Civil Engineering*, **2011**, 38, 124-126	1.3	0
1	A Matlab script for the morphometric analysis of subaerial, subaquatic and extra-terrestrial rivers, channels and canyons. *Computers and Geosciences*, **2022**, 162, 105080	4.5	0