## Karl-Erich Lindenschmidt

List of Publications by Year in descending order

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122 papers

2,173 citations

257357 24 h-index 330025 37 g-index

129 all docs

129 does citations

times ranked

129

2055 citing authors

#	Article	IF	CITATIONS
1	Bridging science and traditional knowledge to assess cumulative impacts of stressors on ecosystem health. Environment International, 2017, 102, 125-137.	4.8	101
2	The effect of complexity on parameter sensitivity and model uncertainty in river water quality modelling. Ecological Modelling, 2006, 190, 72-86.	1.2	92
3	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.	2.3	86
4	Structural uncertainty in a river water quality modelling system. Ecological Modelling, 2007, 204, 289-300.	1.2	77
5	The effect of water column mixing on phytoplankton succession, diversity and similarity. Journal of Plankton Research, 1998, 20, 1927-1951.	0.8	76
6	RIVICEâ€"A Non-Proprietary, Open-Source, One-Dimensional River-Ice Model. Water (Switzerland), 2017, 9, 314.	1.2	58
7	Evidence for internal phosphorus loading in a large prairie reservoir (Lake Diefenbaker,) Tj ETQq1 1 0.784314 rgBT	Overlock	10 Tf 50 50
8	Iceâ€jam flood risk assessment and mapping. Hydrological Processes, 2016, 30, 3754-3769.	1.1	55
9	Trends in the Timing and Magnitude of Ice-Jam Floods in Canada. Scientific Reports, 2018, 8, 5834.	1.6	55
10	Modelling of snowmelt erosion and sediment yield in a small low-mountain catchment in Germany. Catena, 2006, 68, 161-176.	2.2	53
11	Improving in-lake water quality modeling using variable chlorophyll a/algal biomass ratios. Environmental Modelling and Software, 2018, 101, 73-85.	1.9	50
12	Modelling Dissolved Oxygen/Sediment Oxygen Demand under Ice in a Shallow Eutrophic Prairie Reservoir. Water (Switzerland), 2017, 9, 131.	1.2	36
13	Lake Diefenbaker temperature model. Journal of Great Lakes Research, 2015, 41, 8-21.	0.8	34
14	Impacts of Climate Change on the Water Quality of a Regulated Prairie River. Water (Switzerland), 2017, 9, 199.	1.2	34
15	A novel stochastic modelling approach for operational real-time ice-jam flood forecasting. Journal of Hydrology, 2019, 575, 381-394.	2.3	33
16	A water coverage extraction approach to track inundation in the Saskatchewan River Delta, Canada. International Journal of Remote Sensing, 2015, 36, 764-781.	1.3	29
17	Comparison and Validation of Digital Elevation Models Derived from InSAR for a Flat Inland Delta in the High Latitudes of Northern Canada. Canadian Journal of Remote Sensing, 2017, 43, 109-123.	1.1	29
18	Variable withdrawal elevations as a management tool to counter the effects of climate warming in Germany $\hat{a} \in \mathbb{R}^{M}$ s largest drinking water reservoir. Environmental Sciences Europe, 2019, 31, .	2.6	29

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19	Ice Jam Modelling of the Lower Red River. Journal of Water Resource and Protection, 2012, 04, 1-11.	0.3	29
20	A framework for engaging stakeholders in water quality modeling and management: Application to the Qu'Appelle River Basin, Canada. Journal of Environmental Management, 2019, 231, 1117-1126.	3.8	28
21	Integration of space-borne and air-borne data in monitoring river ice processes in the Slave River, Canada. Remote Sensing of Environment, 2016, 181, 65-81.	4.6	26
22	Modelling ice cover formation of a lake–river system with exceptionally high flows (Lake St. Martin) Tj ETQq0 (	0 orgBT /C	Overlock 10 Tf 25
23	Using Remote Sensing Data to Parameterize Ice Jam Modeling for a Northern Inland Delta. Water (Switzerland), 2017, 9, 306.	1.2	25
24	Environmental risk of dissolved oxygen depletion of diverted flood waters in river polder systems – A quasi-2D flood modelling approach. Science of the Total Environment, 2009, 407, 1598-1612.	3.9	24
25	Using stage frequency distributions as objective functions for model calibration and global sensitivity analyses. Environmental Modelling and Software, 2017, 92, 169-175.	1.9	24
26	Stable sulfur isotopes identify habitat-specific foraging and mercury exposure in a highly mobile fish community. Science of the Total Environment, 2017, 586, 338-346.	3.9	24
27	Improved Understanding of River Ice Processes Using Global Sensitivity Analysis Approaches. Journal of Hydrologic Engineering - ASCE, 2017, 22, .	0.8	24
28	Promoting Sustainable Ice-Jam Flood Management along the Peace River and Peace-Athabasca Delta. Journal of Water Resources Planning and Management - ASCE, 2019, 145, .	1.3	24
29	Lessons learned from past ice-jam floods concerning the challenges of flood mapping. International Journal of River Basin Management, 2018, 16, 457-468.	1.5	23
30	Climatic effects on ice phenology and ice-jam flooding of the Athabasca River in western Canada. Hydrological Sciences Journal, 2019, 64, 1265-1278.	1.2	23
31	Monitoring the Variation in Ice-Cover Characteristics of the Slave River, Canada Using RADARSAT-2 Dataâ€"A Case Study. Remote Sensing, 2015, 7, 13664-13691.	1.8	22
32	Dynamic water quality modelling and uncertainty analysis of phytoplankton and nutrient cycles for the upper South Saskatchewan River. Environmental Science and Pollution Research, 2015, 22, 18239-18251.	2.7	22
33	Ice-jam flood research: a scoping review. Natural Hazards, 2018, 94, 1439-1457.	1.6	22
34	Ice-Jam Flood Risk Assessment and Hazard Mapping under Future Climate. Journal of Water Resources Planning and Management - ASCE, 2020, 146, .	1.3	21
35	A quasi-2D flood modeling approach to simulate substance transport in polder systems for environment flood risk assessment. Science of the Total Environment, 2008, 397, 86-102.	3.9	20
36	Impacts of Varying Dam Outflow Elevations on Water Temperature, Dissolved Oxygen, and Nutrient Distributions in a Large Prairie Reservoir. Environmental Engineering Science, 2020, 37, 78-97.	0.8	20

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37	Measuring Ice Thicknesses along the Red River in Canada Using RADARSAT-2 Satellite Imagery. Journal of Water Resource and Protection, 2010, 02, 923-933.	0.3	20
38	Monitoring the freeze-up and ice cover progression of the Slave River. Canadian Journal of Civil Engineering, 2015, 42, 609-621.	0.7	19
39	Influence of hydrological connectivity on winter limnology in floodplain lakes of the Saskatchewan River Delta, Saskatchewan. Canadian Journal of Fisheries and Aquatic Sciences, 2016, 73, 140-152.	0.7	19
40	Topography- and nightlight-based national flood risk assessment in Canada. Hydrology and Earth System Sciences, 2017, 21, 2219-2232.	1.9	19
41	Modelling the effects of climate and flow regulation on iceâ€affected backwater staging in a large northern river. River Research and Applications, 2019, 35, 587-600.	0.7	19
42	CE-QUAL-W2 model of dam outflow elevation impact on temperature, dissolved oxygen and nutrients in a reservoir. Scientific Data, 2019, 6, 312.	2.4	19
43	The ecohydrological vulnerability of a large inland delta to changing regional streamflows and upstream irrigation expansion. Ecohydrology, 2017, 10, e1824.	1.1	18
44	Seasonal Variation in Sediment Oxygen Demand in a Northern Chained River-Lake System. Water (Switzerland), 2017, 9, 254.	1.2	18
45	River Ice Processes and Ice Flood Forecasting. , 2020, , .		18
46	The impact of macrophytes on winter flows along the Upper Qu'Appelle River. Canadian Water Resources Journal, 2014, 39, 342-355.	0.5	17
47	Development of an Ice Jam Flood Forecasting System for the Lower Oder River—Requirements for Real-Time Predictions of Water, Ice and Sediment Transport. Water (Switzerland), 2019, 11, 95.	1.2	17
48	Evaluating the impact of fluvial geomorphology on river ice cover formation based on a global sensitivity analysis of a river ice model. Canadian Journal of Civil Engineering, 2013, 40, 623-632.	0.7	16
49	River and Lake Ice Processes—Impacts of Freshwater Ice on Aquatic Ecosystems in a Changing Globe. Water (Switzerland), 2018, 10, 1586.	1.2	16
50	Modelling the possible impacts of climate change on the thermal regime and macroinvertebrate species of a regulated prairie river. Ecohydrology, 2019, 12, e2102.	1.1	16
51	A geospatial model to determine patterns of ice cover breakup along the Slave River. Canadian Journal of Civil Engineering, 2015, 42, 675-685.	0.7	15
52	Challenges of modelling water quality in a shallow prairie lake with seasonal ice cover. Ecological Modelling, 2018, 384, 43-52.	1.2	15
53	Evaluating transdisciplinary research practices: insights from social network analysis. Sustainability Science, 2021, 16, 631-645.	2.5	15
54	The impacts of changing climate and streamflow on nutrient speciation in a large Prairie reservoir. Journal of Environmental Management, 2021, 288, 112262.	3.8	15

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55	Synthesis of science: findings on Canadian Prairie wetland drainage. Canadian Water Resources Journal, 2021, 46, 229-241.	0.5	15
56	Geospatial modelling to determine the behaviour of ice cover formation during freeze-up of the Dauphin River in Manitoba. Hydrology Research, 2014, 45, 645-659.	1.1	14
57	Sustainable Ice-Jam Flood Management for Socio-Economic and Socio-Ecological Systems. Water (Switzerland), 2018, 10, 135.	1.2	14
58	Vanadium and thallium exhibit biodilution in a northern river food web. Chemosphere, 2019, 233, 381-386.	4.2	14
59	A multi-objective calibration approach using in-situ soil moisture data for improved hydrological simulation of the Prairies. Hydrological Sciences Journal, 2020, 65, 638-649.	1.2	14
60	Advances in modelling large river basins in cold regions with Modélisation Environmentale Communautaire—Surface and Hydrology (MESH), the Canadian hydrological land surface scheme. Hydrological Processes, 2022, 36, .	1.1	14
61	Parameter Sensitivity of a Surface Water Quality Model of the Lower South Saskatchewan River—Comparison Between Ice-On and Ice-Off Periods. Environmental Modeling and Assessment, 2017, 22, 291-307.	1.2	13
62	Sediment plume modelâ€"a comparison between use of measured turbidity data and satellite images for model calibration. Environmental Science and Pollution Research, 2017, 24, 19583-19598.	2.7	13
63	Potential Changes of Annual-Averaged Nutrient Export in the South Saskatchewan River Basin under Climate and Land-Use Change Scenarios. Water (Switzerland), 2018, 10, 1438.	1.2	13
64	Impacts of future climate on the hydrology of a northern headwaters basin and its implications for a downstream deltaic ecosystem. Hydrological Processes, 2020, 34, 1630-1646.	1.1	13
65	Monitoring river ice cover development using the Freeman–Durden decomposition of quad-pol Radarsat-2 images. Journal of Applied Remote Sensing, 2018, 12, 1.	0.6	13
66	An Economic Assessment of Local Farm Multi-Purpose Surface Water Retention Systems under Future Climate Uncertainty. Sustainability, 2017, 9, 456.	1.6	12
67	Assessing the transport of total phosphorus from a prairie river basin using SPARROW. Hydrological Processes, 2015, 29, 4144-4160.	1.1	11
68	Radar Scatter Decomposition to Differentiate between Running Ice Accumulations and Intact Ice Covers along Rivers. Remote Sensing, 2019, 11, 307.	1.8	11
69	A physically-based modelling framework for operational forecasting of river ice breakup. Advances in Water Resources, 2020, 139, 103554.	1.7	11
70	A GIS approach to define the hydro-geomorphological regime for instream flow requirements using geomorphic response units (GRU). River Systems, 2013, 20, 261-275.	0.2	11
71	Quasi-2D Approach in Modeling the Transport of Contaminated Sediments in Floodplains during River Flooding—Model Coupling and Uncertainty Analysis. Environmental Engineering Science, 2008, 25, 333-352.	0.8	9
72	Geospatial modeling of the Birch River: Distribution of Carmine Shiner ( <i>Notropis percobromus</i> ) in Geomorphic Response Units (GRU). International Review of Hydrobiology, 2015, 100, 129-140.	0.5	9

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73	Quantifying Spatial Changes in the Structure of Water Quality Constituents in a Large Prairie River within Two Frameworks of a Water Quality Model. Water (Switzerland), 2016, 8, 158.	1.2	9
74	Air pockets and water lenses in the ice cover of the Slave River. Cold Regions Science and Technology, 2017, 136, 72-80.	1.6	9
<b>7</b> 5	Surface water retention systems for cattail production as a biofuel. Journal of Environmental Management, 2017, 203, 500-509.	3.8	9
76	Water quality modeling of a prairie river-lake system. Environmental Science and Pollution Research, 2018, 25, 31190-31204.	2.7	9
77	Monitoring, assessment and modelling using water quality data in the Saale River Basin, Germany. Environmental Monitoring and Assessment, 2007, 135, 227-240.	1.3	8
78	Development of geomorphic typologies for identifying Lake Sturgeon (Acipenser fulvescens) habitat in the Saskatchewan River System. River Systems, 2015, 21, 215-227.	0.2	8
79	Sedimentation and erosion in Lake Diefenbaker, Canada: solutions for shoreline retreat monitoring. Environmental Monitoring and Assessment, 2017, 189, 507.	1.3	8
80	Ecological patterns of fish distribution in the Slave River Delta region, Northwest Territories, Canada, as relayed by traditional knowledge and Western science. International Journal of Water Resources Development, 2018, 34, 305-324.	1.2	8
81	Potential of RADARSAT-2 to Improve Ice Thickness Calculations in Remote, Poorly Accessible Areas: A Case Study on the Slave River, Canada. Canadian Journal of Remote Sensing, 2019, 45, 234-245.	1.1	7
82	Incorporating social dimensions in hydrological and water quality modeling to evaluate the effectiveness of agricultural beneficial management practices in a Prairie River Basin. Environmental Science and Pollution Research, 2020, 27, 14271-14287.	2.7	7
83	Modelling climatic impacts on ice-jam floods: a review of current models, modelling capabilities, challenges, and future prospects. Environmental Reviews, 2021, 29, 378-390.	2.1	7
84	Comparison of aquatic ecosystem functioning between eutrophic and hypereutrophic cold-region river-lake systems. Ecological Modelling, 2019, 393, 25-36.	1.2	6
85	Climate change effects on the thermal stratification of Lake Diefenbaker, a large multi-purpose reservoir. Canadian Water Resources Journal, 2021, 46, 1-16.	0.5	6
86	Measuring the skill of an operational ice jam flood forecasting system. International Journal of Disaster Risk Reduction, 2021, 52, 102001.	1.8	6
87	A generic approach to evaluate costs and effectiveness of agricultural Beneficial Management Practices to improve water quality management. Journal of Environmental Management, 2021, 287, 112336.	3.8	6
88	Buffalo Pound Lake—Modelling Water Resource Management Scenarios of a Large Multi-Purpose Prairie Reservoir. Water (Switzerland), 2022, 14, 584.	1.2	6
89	The upper Qu'Appelle water supply project in Saskatchewan, Canada: upland canal ice study. Osterreichische Wasser- Und Abfallwirtschaft, 2015, 67, 230-239.	0.3	5
90	Geospatial Modeling of River Systems. Water (Switzerland), 2018, 10, 282.	1.2	5

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91	Correlation among parameters and boundary conditions in river ice models. Modeling Earth Systems and Environment, 2020, 6, 499-512.	1.9	5
92	Current status and advancement suggestions of ice-jam flood hazard and risk assessment. Environmental Reviews, 2020, 28, 373-379.	2.1	5
93	Evaluation of the implications of iceâ€jam flood mitigation measures. Journal of Flood Risk Management, 2021, 14, e12697.	1.6	5
94	Modelling of ice jam floods under past and future climates: A review. Journal of Hydrology X, 2022, 15, 100120.	0.8	5
95	Impact of morphological parameters on water quality variables of a regulated lowland river. Water Science and Technology, 2005, 52, 187-93.	1.2	5
96	Using a Geospatial Model to Relate Fluvial Geomorphology to Macroinvertebrate Habitat in a Prairie Riverâ€"Part 1: Genus-Level Relationships with Geomorphic Typologies. Water (Switzerland), 2016, 8, 42.	1.2	4
97	Coherence of Radarsat-2, Sentinel-1, and ALOS-1 PALSAR for monitoring spatiotemporal variations of river ice covers. Canadian Journal of Remote Sensing, 2018, 44, 11-25.	1.1	4
98	Effects of River Geomorphology on River Ice Freeze-up and Break-up Rates Using MODIS Imagery. Canadian Journal of Remote Sensing, 2019, 45, 176-191.	1.1	4
99	A stochastic modelling approach to forecast real-time ice jam flood severity along the transborder (New Brunswick/Maine) Saint John River of North America. Stochastic Environmental Research and Risk Assessment, 2022, 36, 1903-1915.	1.9	4
100	Using a Geospatial Model to Relate Fluvial Geomorphology to Macroinvertebrate Habitat in a Prairie Riverâ€"Part 2: Matching Family-Level Indices to Geomorphological Response Units (GRUs). Water (Switzerland), 2016, 8, 107.	1.2	3
101	Identifying links between Fluvial Geomorphic Response Units (FGRUs) and fish species in the Assiniboine River, Manitoba. Ecohydrology, 2016, 9, 1154-1165.	1.1	3
102	An economic assessment of local farm multi-purpose surface water retention systems in a Canadian Prairie setting. Applied Water Science, 2017, 7, 4461-4478.	2.8	3
103	An ice jam flood hazard assessment of a lowland river and its terminus inland delta. Natural Hazards, 2021, 105, 2799-2817.	1.6	3
104	Effects of quality controlled measured and re-analysed meteorological data on the performance of water temperature simulations. Hydrological Sciences Journal, 0, , .	1.2	3
105	Modelling transverse mixing of sediment and vanadium in a river impacted by oil sands mining operations. Journal of Hydrology: Regional Studies, 2022, 40, 101043.	1.0	3
106	Openâ€water and underâ€ice seasonal variations in trace element content and physicochemical associations in fluvial bed sediment. Environmental Toxicology and Chemistry, 2017, 36, 2916-2924.	2.2	2
107	Water Quality Modeling of Phytoplankton and Nutrient Cycles of a Complex Cold-Region River-Lake System. Environmental Modeling and Assessment, 2020, 25, 293-306.	1.2	2
108	Evaluation of the sensitivity of hydraulic model parameters, boundary conditions and digital elevation models on ice-jam flood delineation. Cold Regions Science and Technology, 2021, 183, 103218.	1.6	2

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109	Stochastic bias correction for RADARSAT-2 soil moisture retrieved over vegetated areas. Geocarto International, 2022, 37, 9190-9203.	1.7	2
110	The importance of RADARSAT-2 imagery in monitoring river ice cover characteristics and behaviour. , 2014, , .		1
111	Feasibility of using continuous, stiff materials for reinforcing freshwater ice covers. SN Applied Sciences, 2019, 1, 1.	1.5	1
112	Sensitivity of boundary data in a shallow prairie lake model. Canadian Water Resources Journal, 2020, 45, 204-215.	0.5	1
113	Exploring the Potential of Zoning Regulation for Reducing Ice-Jam Flood Risk Using a Stochastic Modelling Framework. Water (Switzerland), 2021, 13, 2202.	1.2	1
114	Numerical Modelling of River-Ice Processes (Application). , 2020, , 145-174.		1
115	Climate change impacts on ice jam behavior in an inland delta: a new ice jam projection framework. Climatic Change, 2022, 171, 1.	1.7	1
116	Evidence-based identification of integrated water quality systems. Journal of Environmental Planning and Management, 2023, 66, 1431-1452.	2.4	1
117	The impact of a bias-correction approach (delta change) applied directly to hydrological model output when modelling the severity of ice jam flooding under future climate scenarios. Climatic Change, 2022, 172, .	1.7	1
118	Editorial Note – Special Issue on "Advanced Remote Sensing Technologies for Natural Resource Management and Disaster Monitoring - 39th Canadian Symposium on Remote Sensing― Canadian Journal of Remote Sensing, 2019, 45, 113-115.	1.1	0
119	Interfacing Stakeholder Involvement into a Surface Water-Quality Modelling System for Water Management and Policy Development. Green Energy and Technology, 2019, , 312-316.	0.4	0
120	Ice-Cover Monitoring. , 2020, , 39-77.		0
121	Freeze-Up., 2020, , 11-38.		0
122	Proof-of-Concept of a Quasi-2D Water-Quality Modelling Approach to Simulate Transverse Mixing in Rivers. Water (Switzerland), 2021, 13, 3071.	1.2	0