

# Vladimir Cvetkovic

## List of Publications by Year in descending order

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Version: 2024-02-01

69  
papers

2,208  
citations

236925

25  
h-index

233421

45  
g-index

70  
all docs

70  
docs citations

70  
times ranked

1314  
citing authors

#	ARTICLE	IF	CITATIONS
1	Transport of kinetically sorbing solute by steady random velocity in heterogeneous porous formations. <i>Journal of Fluid Mechanics</i> , 1994, 265, 189-215.	3.4	238
2	Roughness decomposition and nonlinear fluid flow in a single rock fracture. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2015, 75, 102-118.	5.8	206
3	Shear-enhanced nonlinear flow in rough-walled rock fractures. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2017, 97, 33-45.	5.8	121
4	Field scale mass arrival of sorptive solute into the groundwater. <i>Water Resources Research</i> , 1991, 27, 1315-1325.	4.2	117
5	Evaluation of Risk from Contaminants Migrating by Groundwater. <i>Water Resources Research</i> , 1996, 32, 611-621.	4.2	97
6	Time domain particle tracking methods for simulating transport with retention and first-order transformation. <i>Water Resources Research</i> , 2008, 44, .	4.2	88
7	Flow and travel time statistics in highly heterogeneous porous media. <i>Water Resources Research</i> , 2009, 45, .	4.2	69
8	Relative dispersion for solute flux in aquifers. <i>Journal of Fluid Mechanics</i> , 1998, 361, 145-174.	3.4	60
9	Modeling of flow and mixing in 3D rough-walled rock fracture intersections. <i>Advances in Water Resources</i> , 2017, 107, 1-9.	3.8	59
10	Two-phase cement grout propagation in homogeneous water-saturated rock fractures. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2018, 106, 243-249.	5.8	59
11	Power-law velocity distributions in fracture networks: Numerical evidence and implications for tracer transport. <i>Geophysical Research Letters</i> , 2002, 29, 20-1-20-4.	4.0	56
12	Modeling of Solute Transport in a 3D Rough-Walled Fracture-Matrix System. <i>Transport in Porous Media</i> , 2017, 116, 1005-1029.	2.6	56
13	The tempered one-sided stable density: a universal model for hydrological transport?. <i>Environmental Research Letters</i> , 2011, 6, 034008.	5.2	49
14	Water and solute transport along hydrological pathways. <i>Water Resources Research</i> , 2012, 48, .	4.2	46
15	Solute transport and retention in three-dimensional fracture networks. <i>Water Resources Research</i> , 2012, 48, .	4.2	44
16	Solute transport in aquifers of arbitrary variability: A time-domain random walk formulation. <i>Water Resources Research</i> , 2014, 50, 5759-5773.	4.2	43
17	Ergodic transport through aquifers of non-Gaussian log conductivity distribution and occurrence of anomalous behavior. <i>Water Resources Research</i> , 2007, 43, .	4.2	41
18	Cement grout propagation in two-dimensional fracture networks: Impact of structure and hydraulic variability. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2019, 115, 1-10.	5.8	38

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19	Influence of surface roughness on fluid flow and solute transport through 3D crossed rock fractures. <i>Journal of Hydrology</i> , 2020, 582, 124284.	5.4	37
20	Pump-and-Treat Remediation of Heterogeneous Aquifers: Effects of Rate-Limited Mass Transfer. <i>Ground Water</i> , 1995, 33, 675-685.	1.3	35
21	Stochastic analysis of oxygen- and nitrate-based biodegradation of hydrocarbons in aquifers. <i>Journal of Contaminant Hydrology</i> , 2000, 41, 335-365.	3.3	32
22	Significance of injection modes and heterogeneity on spatial and temporal dispersion of advecting particles in two-dimensional discrete fracture networks. <i>Advances in Water Resources</i> , 2009, 32, 649-658.	3.8	31
23	A High-Resolution Contact Analysis of Rough-Walled Crystalline Rock Fractures Subject to Normal Stress. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 2141-2155.	5.4	31
24	Impact of normal stress-induced closure on laboratory-scale solute transport in a natural rock fracture. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2020, 12, 732-741.	8.1	28
25	A Critical Analysis of Transverse Dispersivity Field Data. <i>Ground Water</i> , 2019, 57, 632-639.	1.3	27
26	Yield-power-law fluid propagation in water-saturated fracture networks with application to rock grouting. <i>Tunnelling and Underground Space Technology</i> , 2020, 95, 103170.	6.2	26
27	Impact of aquifer heterogeneity structure and local-scale dispersion on solute concentration uncertainty. <i>Water Resources Research</i> , 2013, 49, 3712-3728.	4.2	25
28	Adaptive Fup multi-resolution approach to flow and advective transport in highly heterogeneous porous media: Methodology, accuracy and convergence. <i>Advances in Water Resources</i> , 2009, 32, 885-905.	3.8	21
29	Analysis of Bingham fluid radial flow in smooth fractures. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2020, 12, 1112-1118.	8.1	21
30	Computational issues in the determination of solute discharge moments and implications for comparison to analytical solutions. <i>Advances in Water Resources</i> , 2001, 24, 607-619.	3.8	20
31	Significance of higher moments for complete characterization of the travel time probability density function in heterogeneous porous media using the maximum entropy principle. <i>Water Resources Research</i> , 2010, 46, .	4.2	20
32	A general memory function for modeling mass transfer in groundwater transport. <i>Water Resources Research</i> , 2012, 48, .	4.2	17
33	Tracer travel and residence time distributions in highly heterogeneous aquifers: Coupled effect of flow variability and mass transfer. <i>Journal of Hydrology</i> , 2016, 543, 101-108.	5.4	17
34	Multi-Layered Stratification in the Baltic Sea: Insight from a Modeling Study with Reference to Environmental Conditions. <i>Journal of Marine Science and Engineering</i> , 2017, 5, 2.	2.6	17
35	Socioecological informed comparative modeling to promote sustainable urban policy transitions: Case study in Chicago and Stockholm. <i>Journal of Cleaner Production</i> , 2021, 281, 125050.	9.3	17
36	Inference of Transmissivity in Crystalline Rock Using Flow Logs Under Steady-State Pumping: Impact of Multiscale Heterogeneity. <i>Water Resources Research</i> , 2020, 56, e2020WR027254.	4.2	16

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37	Assumptions of the analytical solution for solute transport in a fracture-matrix system. International Journal of Rock Mechanics and Minings Sciences, 2016, 83, 211-217.	5.8	15
38	Introduction to special section on Modeling highly heterogeneous aquifers: Lessons learned in the last 30 years from the <scp>MADE</scp> experiments and others. Water Resources Research, 2017, 53, 2581-2584.	4.2	15
39	Stochastic analysis of early tracer arrival in a segmented fracture pathway. Water Resources Research, 2001, 37, 1669-1680.	4.2	14
40	On the distribution of water age along hydrological pathways with transient flow. Water Resources Research, 2013, 49, 5238-5245.	4.2	14
41	Data-driven analysis of nutrient inputs and transfers through nested catchments. Science of the Total Environment, 2018, 610-611, 482-494.	8.0	13
42	Radial propagation of yield-power-law grouts into water-saturated homogeneous fractures. International Journal of Rock Mechanics and Minings Sciences, 2020, 130, 104308.	5.8	13
43	On the Relationship Between Normal Stiffness and Permeability of Rock Fractures. Geophysical Research Letters, 2021, 48, .	4.0	13
44	On the velocity covariance for steady flows in heterogeneous porous formations and its application to contaminants transport. Computational Geosciences, 2006, 9, 155-177.	2.4	12
45	A Particle-Based Conditional Sampling Scheme for the Simulation of Transport in Fractured Rock With Diffusion Into Stagnant Water and Rock Matrix. Water Resources Research, 2020, 56, e2019WR026958.	4.2	12
46	On the upscaling of chemical transport in fractured rock. Water Resources Research, 2014, 50, 5797-5816.	4.2	11
47	Evaluation of Flow-Log Data From Crystalline Rocks With Steady-State Pumping and Ambient Flow. Geophysical Research Letters, 2021, 48, e2021GL092741.	4.0	11
48	Tracer attenuation in groundwater. Water Resources Research, 2011, 47, .	4.2	10
49	Accessibility of Water-Related Cultural Ecosystem Services through Public Transport-A Model for Planning Support in the Stockholm Region. Sustainability, 2017, 9, 346.	3.2	10
50	Transport of reactive solutes. , 1997, , 133-145.		10
51	Groundwater Contaminant Transport: Prediction Under Uncertainty, With Application to the MADE Transport Experiment. Frontiers in Environmental Science, 2019, 7, .	3.3	9
52	A scalable dynamic characterisation approach for water quality management in semi-enclosed seas and archipelagos. Marine Pollution Bulletin, 2019, 139, 311-327.	5.0	9
53	Inference of Retention Time From Tracer Tests in Crystalline Rock. Water Resources Research, 2020, 56, e2019WR025266.	4.2	9
54	How Does ICT Expansion Drive -Smart-Urban Growth? A Case Study of Nanjing, China. Urban Planning, 2020, 5, 129-139.	1.3	9

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55	Statistical Formulation of Generalized Tracer Retention in Fractured Rock. <i>Water Resources Research</i> , 2017, 53, 8736-8759.	4.2	8
56	Upscaling of radionuclide transport and retention in crystalline rocks exhibiting micro-scale heterogeneity of the rock matrix. <i>Advances in Water Resources</i> , 2020, 142, 103644.	3.8	8
57	Evaluation of analytical solute discharge moments using numerical modeling in absolute and relative dispersion frameworks. <i>Water Resources Research</i> , 2002, 38, 1-1-1-8.	4.2	7
58	Dominant Hydro-Climatic Drivers of Water Temperature, Salinity, and Flow Variability for the Large-Scale System of the Baltic Coastal Wetlands. <i>Water (Switzerland)</i> , 2019, 11, 552.	2.7	7
59	Urban Ecosystem Vulnerability Assessment of Support Climate-Resilient City Development. <i>Urban Planning</i> , 2021, 6, 227-239.	1.3	7
60	How accurate is predictive modeling of groundwater transport? A case study of advection, macrodispersion, and diffusive mass transfer at the Forsmark site (Sweden). <i>Water Resources Research</i> , 2013, 49, 5317-5327.	4.2	6
61	Flow dependence of matrix diffusion in highly heterogeneous rock fractures. <i>Water Resources Research</i> , 2013, 49, 7587-7597.	4.2	6
62	Bathymetry Development and Flow Analyses Using Two-Dimensional Numerical Modeling Approach for Lake Victoria. <i>Fluids</i> , 2019, 4, 182.	1.7	6
63	Simulation of nutrient management and hydroclimatic effects on coastal water quality and ecological status – The Baltic Himmerfjärden Bay case. <i>Ocean and Coastal Management</i> , 2020, 198, 105360.	4.4	5
64	Scenarios of Nutrient-Related Solute Loading and Transport Fate from Different Land Catchments and Coasts into the Baltic Sea. <i>Water (Switzerland)</i> , 2019, 11, 1407.	2.7	3
65	A Comparison of Six Transport Models of the MADE-1 Experiment Implemented With Different Types of Hydraulic Data. <i>Water Resources Research</i> , 2021, 57, e2020WR028672.	4.2	3
66	Impact of shear displacement on advective transport in a laboratory-scale fracture. <i>Geomechanics for Energy and the Environment</i> , 2022, 31, 100278.	2.5	3
67	On the interplay between hillslope and drainage network flow dynamics in the catchment travel time distribution. <i>Hydrological Processes</i> , 2022, 36, .	2.6	3
68	Collapse of higher-order solute concentration moments in groundwater transport. <i>Water Resources Research</i> , 2013, 49, 4751-4764.	4.2	2
69	Analytical solution for two-phase flow of silica sol grouting in homogeneous fractures. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 710, 012062.	0.3	0