

# Lichun Wang

## List of Publications by Year in descending order

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43  
papers

1,000  
citations

471509

17  
h-index

434195

31  
g-index

45  
all docs

45  
docs citations

45  
times ranked

829  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Modification of the local cubic law of fracture flow for weak inertia, tortuosity, and roughness. <i>Water Resources Research</i> , 2015, 51, 2064-2080.   | 4.2 | 149       |
| 2  | Non-Fickian transport through two-dimensional rough fractures: Assessment and prediction. <i>Water Resources Research</i> , 2014, 50, 871-884.   | 4.2 | 73        |
| 3  | Temperature effects on nitrogen cycling and nitrate removal—production efficiency in bed form—induced hyporheic zones. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 1086-1103.                | 3.0 | 56        |
| 4  | Development of an empirical model relating permeability and specific stiffness for rough fractures from numerical deformation experiments. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 4977-4989. | 3.4 | 55        |
| 5  | Universal Relationship Between Viscous and Inertial Permeability of Geologic Porous Media. <i>Geophysical Research Letters</i> , 2019, 46, 1441-1448.  | 4.0 | 54        |
| 6  | Mass Transfer Between Recirculation and Main Flow Zones: Is Physically Based Parameterization Possible?. <i>Water Resources Research</i> , 2019, 55, 345-362.  | 4.2 | 52        |
| 7  | Emergence of Nonlinear Laminar Flow in Fractures During Shear. <i>Rock Mechanics and Rock Engineering</i> , 2018, 51, 3635-3643.   | 5.4 | 48        |
| 8  | Transition from non-Fickian to Fickian longitudinal transport through 3-D rough fractures: Scale-(in)sensitivity and roughness dependence. <i>Journal of Contaminant Hydrology</i> , 2017, 198, 1-10.                  | 3.3 | 44        |
| 9  | Insights of variable permeability full-section wall for enhanced control of seawater intrusion and nitrate contamination in unconfined aquifers. <i>Journal of Hydrology</i> , 2020, 586, 124831.                      | 5.4 | 43        |
| 10 | Theory for dynamic longitudinal dispersion in fractures and rivers with Poiseuille flow. <i>Geophysical Research Letters</i> , 2012, 39, .   | 4.0 | 42        |
| 11 | Ripple Effects: Bed Form Morphodynamics Cascading Into Hyporheic Zone Biogeochemistry. <i>Water Resources Research</i> , 2019, 55, 7320-7342.  | 4.2 | 32        |
| 12 | The Complexity of Nonlinear Flow and non-Fickian Transport in Fractures Driven by Three-Dimensional Recirculation Zones. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB020028.               | 3.4 | 30        |
| 13 | An efficient quasi-3D particle tracking-based approach for transport through fractures with application to dynamic dispersion calculation. <i>Journal of Contaminant Hydrology</i> , 2015, 179, 47-54.                 | 3.3 | 29        |
| 14 | Effect of fluid slippage on eddy growth and non-Darcian flow in rock fractures. <i>Journal of Hydrology</i> , 2020, 581, 124440.   | 5.4 | 27        |
| 15 | Effect of slippery boundary on solute transport in rough-walled rock fractures under different flow regimes. <i>Journal of Hydrology</i> , 2021, 598, 126456.  | 5.4 | 20        |
| 16 | Identification of Groundwater Pollution Sources by a SCE-UA Algorithm-Based Simulation/Optimization Model. <i>Water (Switzerland)</i> , 2018, 10, 193.   | 2.7 | 19        |
| 17 | Modelling the sources and transport of ammonium nitrogen with the SPARROW model: A case study in a karst basin. <i>Journal of Hydrology</i> , 2021, 592, 125763.   | 5.4 | 19        |
| 18 | Modeling colloid transport in fractures with spatially variable aperture and surface attachment. <i>Journal of Hydrology</i> , 2018, 566, 735-742.   | 5.4 | 18        |

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|----|---|-----|-----------|
| 19 | Disentangling the Simultaneous Effects of Inertial Losses and Fracture Dilation on Permeability of Pressurized Fractured Rocks. <i>Geophysical Research Letters</i> , 2019, 46, 8862-8871.  | 4.0 | 17        |
| 20 | Non-Fickian dispersive transport of strontium in laboratory-scale columns: Modelling and evaluation. <i>Journal of Hydrology</i> , 2017, 549, 1-11.   | 5.4 | 16        |
| 21 | Comparison of Nighttime With Daytime Evapotranspiration Responses to Environmental Controls Across Temporal Scales Along a Climate Gradient. <i>Water Resources Research</i> , 2021, 57, e2021WR029638.                             | 4.2 | 16        |
| 22 | Connecting Pressureâ€šSaturation and Relative Permeability Models to Fracture Properties: The Case of Capillaryâ€šDominated Flow of Supercritical CO <sub>2</sub> and Brine. <i>Water Resources Research</i> , 2018, 54, 6965-6982. | 4.2 | 15        |
| 23 | Investigation of controls on the regional soil moisture spatiotemporal patterns across different climate zones. <i>Science of the Total Environment</i> , 2020, 726, 138214.  | 8.0 | 14        |
| 24 | Shallow groundwater inhibits soil respiration and favors carbon uptake in a wet alpine meadow ecosystem. <i>Agricultural and Forest Meteorology</i> , 2021, 297, 108254.  | 4.8 | 13        |
| 25 | Diagnosis of environmental controls on daily actual evapotranspiration across a global flux tower network: the roles of water and energy. <i>Environmental Research Letters</i> , 2020, 15, 124070.                                 | 5.2 | 13        |
| 26 | Linear permeability evolution of expanding conduits due to feedback between flow and fast phase change. <i>Geophysical Research Letters</i> , 2017, 44, 4116-4123.  | 4.0 | 12        |
| 27 | Microscale water distribution and its effects on organic carbon decomposition in unsaturated soils. <i>Science of the Total Environment</i> , 2018, 644, 1036-1043.   | 8.0 | 12        |
| 28 | When can the local advectionâ€šdispersion equation simulate non-Fickian transport through rough fractures?. <i>Stochastic Environmental Research and Risk Assessment</i> , 2019, 33, 931-938.                                       | 4.0 | 10        |
| 29 | Seismicity Enhances Macrodispersion in Finite Porous and Fractured Domains: A Poreâ€šScale Perspective. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 2844-2857.   | 3.4 | 9         |
| 30 | The effect of permeability on Darcy-to-Forchheimer flow transition. <i>Journal of Hydrology</i> , 2022, 610, 127836.  | 5.4 | 6         |
| 31 | Parallel Processing Transport Model MT3DMS by Using OpenMP. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 1063.  | 2.6 | 5         |
| 32 | Analysis of permeability change in dissolving rough fractures using depth-averaged flow and reactive transport models. <i>International Journal of Greenhouse Gas Control</i> , 2019, 91, 102824.                                   | 4.6 | 5         |
| 33 | Can homogeneous slip boundary condition affect effective dispersion in single fractures with Poiseuille flow?. <i>Journal of Hydrology</i> , 2020, 581, 124385.   | 5.4 | 5         |
| 34 | Hydrological Evaluation of Flow Diversion Terraces Using Downhill-Slope Calculation Method for High Resolution and Accuracy DEMs. <i>Sustainability</i> , 2018, 10, 2414.   | 3.2 | 4         |
| 35 | Scaleâ€šdependent Poiseuille flow alternatively explains enhanced dispersion in geothermal environments. <i>Hydrological Processes</i> , 2019, 33, 527-534.   | 2.6 | 4         |
| 36 | The effective pore volume of multiscale heterogenous fracture-porous media systems derived from the residence time of an inert tracer. <i>Journal of Hydrology</i> , 2022, 610, 127839.   | 5.4 | 4         |

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|----|---|-----|-----------|
| 37 | Characterization of the Coherence Between Soil Moisture and Precipitation at Regional Scales. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034340.   | 3.3 | 3         |
| 38 | Colloid transport through a variable-aperture fracture under unfavorable attachment conditions: Characterization with a continuous time random walk model. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 644, 128822. | 4.7 | 3         |
| 39 | Estimation of the Groundwater Exploitation Based on Land Subsidence Numerical Model: a Case Study in the Plain Area of Tianjin. Advanced Materials Research, 2012, 610-613, 2734-2739.  | 0.3 | 2         |
| 40 | Unsteady-State Contact Angle Hysteresis During Droplet Oscillation in Capillary Pores: Theoretical Model and VOF Simulation. Water Resources Research, 2021, 57, e2020WR027453.   | 4.2 | 1         |
| 41 | Characterizing shear-thinning fluids transitioning from rheology- to inertia-dominated flow regimes in porous media. Journal of Hydrology, 2021, 601, 126498.   | 5.4 | 1         |
| 42 | DEVELOPMENT OF AN EMPIRICAL MODEL RELATING PERMEABILITY AND SPECIFIC STIFFNESS FOR ROUGH FRACTURES. , 2016, , .   |     | 0         |
| 43 | The Effects of Pore Geometry on Late Time Solute Transport with the Presence of Recirculation Zone. Energies, 2022, 15, 4636.   | 3.1 | 0         |