

Ran Holtzman

List of Publications by Year in descending order

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Version: 2024-02-01

37
papers

1,066
citations

516561

16
h-index

434063

31
g-index

43
all docs

43
docs citations

43
times ranked

1126
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Comprehensive comparison of pore-scale models for multiphase flow in porous media. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13799-13806. | 3.3 | 162 |
| 2 | Wettability Stabilizes Fluid Invasion into Porous Media via Nonlocal, Cooperative Pore Filling. Physical Review Letters, 2015, 115, 164501. | 2.9 | 144 |
| 3 | Effects of Pore-Scale Disorder on Fluid Displacement in Partially-Wettable Porous Media. Scientific Reports, 2016, 6, 36221. | 1.6 | 94 |
| 4 | Capillary Fracturing in Granular Media. Physical Review Letters, 2012, 108, 264504. | 2.9 | 93 |
| 5 | The origin and mechanisms of salinization of the lower Jordan river. Geochimica Et Cosmochimica Acta, 2004, 68, 1989-2006. | 1.6 | 89 |
| 6 | Crossover from fingering to fracturing in deformable disordered media. Physical Review E, 2010, 82, 046305. | 0.8 | 75 |
| 7 | Monitoring and modeling infiltrationâ€“recharge dynamics of managed aquifer recharge with desalinated seawater. Hydrology and Earth System Sciences, 2017, 21, 4479-4493. | 1.9 | 39 |
| 8 | Geochemical Processes During Managed Aquifer Recharge With Desalinated Seawater. Water Resources Research, 2018, 54, 978-994. | 1.7 | 32 |
| 9 | Thermodynamic and hydrodynamic constraints on overpressure caused by hydrate dissociation: A pore-scale model. Geophysical Research Letters, 2011, 38, n/a-n/a. | 1.5 | 26 |
| 10 | Reactive transport under stress: Permeability evolution in deformable porous media. Earth and Planetary Science Letters, 2018, 493, 198-207. | 1.8 | 26 |
| 11 | Quantifying Ground Water Inputs along the Lower Jordan River. Journal of Environmental Quality, 2005, 34, 897-906. | 1.0 | 24 |
| 12 | Drying in a microfluidic chip: experiments and simulations. Scientific Reports, 2017, 7, 15572. | 1.6 | 24 |
| 13 | Mechanical properties of granular materials: A variational approach to grainâ€“scale simulations. International Journal for Numerical and Analytical Methods in Geomechanics, 2009, 33, 391-404. | 1.7 | 23 |
| 14 | Impact of spatially correlated poreâ€“scale heterogeneity on drying porous media. Water Resources Research, 2017, 53, 5645-5658. | 1.7 | 22 |
| 15 | Sources and Transformations of Nitrogen Compounds along the Lower Jordan River. Journal of Environmental Quality, 2004, 33, 1440-1451. | 1.0 | 21 |
| 16 | Immiscible fluid displacement in porous media with spatially correlated particle sizes. Advances in Water Resources, 2019, 128, 158-167. | 1.7 | 18 |
| 17 | Waterflood Surveillance and Control: Incorporating Hall Plot and Slope Analysis. , 2005, , . | | 17 |
| 18 | Management scenarios for the Jordan River salinity crisis. Applied Geochemistry, 2005, 20, 2138-2153. | 1.4 | 17 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Drying and percolation in correlated porous media. <i>Physical Review Fluids</i> , 2018, 3, . | 1.0 | 16 |
| 20 | Use of biochar to manage soil salts and water: Effects and mechanisms. <i>Catena</i> , 2022, 211, 106018. | 2.2 | 15 |
| 21 | Managed aquifer recharge with reverse-osmosis desalinated seawater: modeling the spreading in groundwater using stable water isotopes. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 6323-6333. | 1.9 | 12 |
| 22 | Frictional granular mechanics: A variational approach. <i>International Journal for Numerical Methods in Engineering</i> , 2010, 81, 1259-1280. | 1.5 | 10 |
| 23 | A Percolation-Based Approach to Scaling Infiltration and Evapotranspiration. <i>Water (Switzerland)</i> , 2017, 9, 104. | 1.2 | 10 |
| 24 | Reactive Flow and Homogenization in Anisotropic Media. <i>Water Resources Research</i> , 2020, 56, e2020WR027518. | 1.7 | 10 |
| 25 | Micromechanical model of weakly-cemented sediments. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2012, 36, 944-958. | 1.7 | 9 |
| 26 | The origin of hysteresis and memory of two-phase flow in disordered media. <i>Communications Physics</i> , 2020, 3, . | 2.0 | 9 |
| 27 | Wormholing in Anisotropic Media: Pore-Scale Effect on Large-Scale Patterns. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093659. | 1.5 | 8 |
| 28 | Dispersive transport and symmetry of the dispersion tensor in porous media. <i>Physical Review E</i> , 2017, 95, 043103. | 0.8 | 4 |
| 29 | Micromechanics of Hydrate Dissociation in Marine Sediments by Grain-Scale Simulations. , 2008, , . | | 3 |
| 30 | The effect of gravitational settling on concentration profiles and dispersion within and above fractured media. <i>International Journal of Multiphase Flow</i> , 2018, 106, 220-227. | 1.6 | 3 |
| 31 | Impact of matrix deformations on drying of granular materials. <i>International Journal of Heat and Mass Transfer</i> , 2020, 153, 119634. | 2.5 | 3 |
| 32 | Water Sources and Quality along the Lower Jordan River, Regional Study. , 2002, , 127-148. | | 3 |
| 33 | Onset of convective instability in an inclined porous medium. <i>Physics of Fluids</i> , 2022, 34, 014104. | 1.6 | 3 |
| 34 | Onset of transient convection in a porous medium with an embedded low-permeability layer. <i>International Journal of Greenhouse Gas Control</i> , 2021, 112, 103490. | 2.3 | 2 |
| 35 | THE LOWER JORDAN RIVER. , 2004, , . | | 0 |
| 36 | Solute Driven Transient Convection in Layered Porous Media. <i>Springer Proceedings in Energy</i> , 2021, , 3-9. | 0.2 | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|---|----|-----------|
| 37 | Onset of Convective Instability in a Porous Medium with a Low-Permeability Layer. , 2020, , . | | 0 |