List of Publications by Year in descending order

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| #  | Article  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Analysis and direct numerical simulation of the flow at a gravity-current head. Part 1. Flow topology and front speed for slip and no-slip boundaries. Journal of Fluid Mechanics, 2000, 418, 189-212. | 3.4  | 380       |
| 2  | Turbidity Currents and Their Deposits. Annual Review of Fluid Mechanics, 2010, 42, 135-156.  | 25.0 | 368       |
| 3  | Three-dimensional vortex breakdown in swirling jets and wakes: direct numerical simulation. Journal of Fluid Mechanics, 2003, 486, 331-378.  | 3.4  | 225       |
| 4  | High-resolution simulations of particle-driven gravity currents. International Journal of Multiphase<br>Flow, 2002, 28, 279-300.   | 3.4  | 190       |
| 5  | Mixing and dissipation in particle-driven gravity currents. Journal of Fluid Mechanics, 2005, 545, 339.  | 3.4  | 156       |
| 6  | Density-driven unstable flows of miscible fluids in a Hele-Shaw cell. Journal of Fluid Mechanics, 2002,<br>451, 239-260.   | 3.4  | 152       |
| 7  | Miscible displacements in capillary tubes. Part 2. Numerical simulations. Journal of Fluid Mechanics, 1996, 326, 57-90.  | 3.4  | 148       |
| 8  | Spiral vortex breakdown as a global mode. Journal of Fluid Mechanics, 2006, 549, 71.   | 3.4  | 137       |
| 9  | Numerical investigation of three-dimensionally evolving jets subject to axisymmetric and azimuthal perturbations. Journal of Fluid Mechanics, 1991, 230, 271-318.                                      | 3.4  | 127       |
| 10 | Miscible porous media displacements in the quarter five-spot configuration. Part 1. The homogeneous case. Journal of Fluid Mechanics, 1998, 371, 233-268.  | 3.4  | 117       |
| 11 | The non-Boussinesq lock-exchange problem. Part 2. High-resolution simulations. Journal of Fluid<br>Mechanics, 2005, 537, 125.  | 3.4  | 108       |
| 12 | Miscible rectilinear displacements with gravity override. Part 1. Homogeneous porous medium.<br>Journal of Fluid Mechanics, 2000, 420, 225-257.  | 3.4  | 107       |
| 13 | Small particles in homogeneous turbulence: Settling velocity enhancement by two-way coupling.<br>Physics of Fluids, 2006, 18, 027102.  | 4.0  | 104       |
| 14 | The accumulation and dispersion of heavy particles in forced twoâ€dimensional mixing layers. I. The fundamental and subharmonic cases. Physics of Fluids, 1994, 6, 1116-1132.                          | 4.0  | 96        |
| 15 | Nonlinear unstable viscous fingers in Hele–Shaw flows. II. Numerical simulation. Physics of Fluids,<br>1988, 31, 429.  | 1.4  | 86        |
| 16 | High-resolution numerical simulations of resuspending gravity currents: Conditions for self-sustainment. Journal of Geophysical Research, 2005, 110, .   | 3.3  | 84        |
| 17 | A collision model for grain-resolving simulations of flows over dense, mobile, polydisperse granular sediment beds. Journal of Computational Physics, 2017, 340, 105-127.                              | 3.8  | 79        |
| 18 | Miscible porous media displacements in the quarter five-spot configuration. Part 2. Effect of heterogeneities. Journal of Fluid Mechanics, 1998, 371, 269-299.   | 3.4  | 78        |

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|----|---|------|-----------|
| 19 | Stability of miscible core–annular flows with viscosity stratification. Journal of Fluid Mechanics, 2007, 592, 23-49.   | 3.4  | 74        |
| 20 | Miscible quarter five-spot displacements in a Hele-Shaw cell and the role of flow-induced dispersion.<br>Physics of Fluids, 1999, 11, 1705-1716.  | 4.0  | 71        |
| 21 | Modeling Gravity and Turbidity Currents: Computational Approaches and Challenges. Applied Mechanics Reviews, 2015, 67, .  | 10.1 | 69        |
| 22 | A numerical study of the convergence properties of ENO schemes. Journal of Scientific Computing, 1990, 5, 151-167.  | 2.3  | 68        |
| 23 | Lock-exchange gravity currents with a high volume of release propagating over a periodic array of obstacles. Journal of Fluid Mechanics, 2011, 672, 570-605.                              | 3.4  | 65        |
| 24 | The accumulation and dispersion of heavy particles in forced twoâ€dimensional mixing layers. Part 2:<br>The effect of gravity. Physics of Fluids, 1995, 7, 1241-1264.                     | 4.0  | 63        |
| 25 | Numerical simulation of miscible displacement processes in porous media flows under gravity. Physics of Fluids A, Fluid Dynamics, 1993, 5, 2644-2660.                                     | 1.6  | 61        |
| 26 | Lock-exchange flows in sloping channels. Journal of Fluid Mechanics, 2007, 577, 53-77.  | 3.4  | 60        |
| 27 | Gravity currents impinging on bottom-mounted square cylinders: flow fields and associated forces.<br>Journal of Fluid Mechanics, 2009, 631, 65-102.                                       | 3.4  | 59        |
| 28 | Miscible displacements in capillary tubes: Influence of Korteweg stresses and divergence effects.<br>Physics of Fluids, 2002, 14, 2052.   | 4.0  | 58        |
| 29 | Three-dimensional miscible displacement simulations in homogeneous porous media with gravity override. Journal of Fluid Mechanics, 2003, 494, 95-117.                                     | 3.4  | 58        |
| 30 | Sediment-laden fresh water above salt water: linear stability analysis. Journal of Fluid Mechanics, 2012, 691, 279-314.   | 3.4  | 58        |
| 31 | Turbidity currents interacting with three-dimensional seafloor topography. Journal of Fluid Mechanics, 2014, 745, 409-443.  | 3.4  | 58        |
| 32 | Sediment-laden fresh water above salt water: nonlinear simulations. Journal of Fluid Mechanics, 2015, 762, 156-195.   | 3.4  | 58        |
| 33 | Dynamics of heavy particles in a Burgers vortex. Physics of Fluids, 1995, 7, 400-410.   | 4.0  | 55        |
| 34 | Dynamics of small, spherical particles in vortical and stagnation point flow fields. Physics of Fluids, 1997, 9, 299-314.   | 4.0  | 54        |
| 35 | TURBINS: An immersed boundary, Navier–Stokes code for the simulation of gravity and turbidity currents interacting with complex topographies. Computers and Fluids, 2011, 45, 14-28.      | 2.5  | 52        |
| 36 | Density-driven instabilities of miscible fluids in a Hele-Shaw cell: linear stability analysis of the three-dimensional Stokes equations. Journal of Fluid Mechanics, 2002, 451, 261-282. | 3.4  | 49        |

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|----|--|-----|-----------|
| 37 | Numerical simulation of finite Reynolds number suspension drops settling under gravity. Physics of Fluids, 2005, 17, 037101.   | 4.0 | 49        |
| 38 | Gravity current flow past a circular cylinder: forces, wall shear stresses and implications for scour.<br>Journal of Fluid Mechanics, 2010, 649, 69-102.                                 | 3.4 | 49        |
| 39 | Long-range sediment transport in the world's oceans by stably stratified turbidity currents. Journal of Geophysical Research: Oceans, 2016, 121, 8608-8620.                              | 2.6 | 49        |
| 40 | High-Accuracy Implicit Finite-Difference Simulations of Homogeneous and Heterogeneous<br>Miscible-Porous-Medium Flows. SPE Journal, 2000, 5, 129-137.                                    | 3.1 | 48        |
| 41 | Miscible droplets in a porous medium and the effects of Korteweg stresses. Physics of Fluids, 2001, 13, 2447-2456.   | 4.0 | 47        |
| 42 | Miscible displacements in Hele-Shaw cells: two-dimensional base states and their linear stability.<br>Journal of Fluid Mechanics, 2006, 558, 329.  | 3.4 | 47        |
| 43 | Polydisperse turbidity currents propagating over complex topography: Comparison of experimental and depth-resolved simulation results. Computers and Geosciences, 2013, 53, 141-153.     | 4.2 | 47        |
| 44 | Tail structure and bed friction velocity distribution of gravity currents propagating over an array of obstacles. Journal of Fluid Mechanics, 2012, 694, 252-291.                        | 3.4 | 45        |
| 45 | Convective/absolute instability in miscible core-annular flow. Part 2. Numerical simulations and nonlinear global modes. Journal of Fluid Mechanics, 2009, 618, 323-348.                 | 3.4 | 44        |
| 46 | Linear stability of radial displacements in porous media: Influence of velocity-induced dispersion and concentration-dependent diffusion. Physics of Fluids, 2004, 16, 3592-3598.        | 4.0 | 40        |
| 47 | Settling of cohesive sediment: particle-resolvedÂsimulations. Journal of Fluid Mechanics, 2019, 858,<br>5-44.  | 3.4 | 40        |
| 48 | Numerical investigation of three-dimensionally evolving jets under helical perturbations. Journal of Fluid Mechanics, 1992, 243, 457.  | 3.4 | 39        |
| 49 | Lock-exchange gravity currents with a low volume of release propagating over an array of obstacles.<br>Journal of Geophysical Research: Oceans, 2014, 119, 2752-2768.                    | 2.6 | 39        |
| 50 | On the motion of small spherical bubbles in twoâ€dimensional vortical flows. Physics of Fluids A, Fluid<br>Dynamics, 1993, 5, 2326-2341.   | 1.6 | 37        |
| 51 | Confronting Grand Challenges in environmental fluid mechanics. Physical Review Fluids, 2021, 6, .  | 2.5 | 37        |
| 52 | Development of boundary conditions for direct numerical simulations of three-dimensional vortex breakdown phenomena in semi-infinite domains. Computers and Fluids, 2004, 33, 1225-1250. | 2.5 | 36        |
| 53 | Channel formation by turbidity currents: Navier–Stokes-based linear stability analysis. Journal of Fluid Mechanics, 2008, 615, 185-210.  | 3.4 | 36        |
| 54 | On the stability of the swirling jet shear layer. Physics of Fluids, 1994, 6, 424-426.   | 4.0 | 33        |

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|----|---|-----|-----------|
| 55 | Shallow-water analysis of gravity-current flows past isolated obstacles. Journal of Fluid Mechanics, 2009, 635, 415-438.  | 3.4 | 33        |
| 56 | Plane Poiseuille flow of miscible layers with different viscosities: instabilities in the Stokes flow regime. Journal of Fluid Mechanics, 2011, 686, 484-506.                             | 3.4 | 32        |
| 57 | Miscible displacements in Hele-Shaw cells: three-dimensional Navier–Stokes simulations. Journal of Fluid Mechanics, 2011, 687, 431-460.   | 3.4 | 31        |
| 58 | Shear stabilization of miscible displacement processes in porous media. Physics of Fluids A, Fluid Dynamics, 1993, 5, 1344-1355.  | 1.6 | 30        |
| 59 | Circulation-based models for Boussinesq internal bores. Journal of Fluid Mechanics, 2013, 726, .  | 3.4 | 30        |
| 60 | Threeâ€dimensional features of particle dispersion in a nominally plane mixing layer. Physics of Fluids,<br>1996, 8, 2266-2268.   | 4.0 | 29        |
| 61 | Variable-density miscible displacements in a vertical Hele-Shaw cell: linear stability. Journal of Fluid<br>Mechanics, 2007, 584, 357-372.  | 3.4 | 28        |
| 62 | Unstable density stratification of miscible fluids in a vertical Hele-Shaw cell: influence of variable viscosity on the linear stability. Journal of Fluid Mechanics, 2004, 516, 211-238. | 3.4 | 27        |
| 63 | Variable density and viscosity, miscible displacements in horizontal Hele-Shaw cells. Part 1. Linear stability analysis. Journal of Fluid Mechanics, 2013, 721, 268-294.                  | 3.4 | 27        |
| 64 | Twoâ€way coupling in shear layers with dilute bubble concentrations. Physics of Fluids, 1994, 6, 2656-2670.   | 4.0 | 26        |
| 65 | Sustained gravity currents in a channel. Journal of Fluid Mechanics, 2016, 798, 853-888.  | 3.4 | 26        |
| 66 | Vorticity interaction mechanisms in variable-viscosity heterogeneous miscible displacements with and without density contrast. Journal of Fluid Mechanics, 2004, 517, 1-25.               | 3.4 | 25        |
| 67 | Variable density and viscosity, miscible displacements in capillary tubes. European Journal of<br>Mechanics, B/Fluids, 2008, 27, 268-289.   | 2.5 | 25        |
| 68 | The shape of submarine levees: exponential or power law?. Journal of Fluid Mechanics, 2009, 619, 367-376.   | 3.4 | 25        |
| 69 | Nonlinear axisymmetric and threeâ€dimensional vorticity dynamics in a swirling jet model. Physics of<br>Fluids, 1996, 8, 1917-1928.   | 4.0 | 24        |
| 70 | Miscible rectilinear displacements with gravity override. Part 2. Heterogeneous porous media. Journal<br>of Fluid Mechanics, 2000, 420, 259-276.  | 3.4 | 24        |
| 71 | Vorticity dynamics of dilute two-way-coupled particle-laden mixing layers. Journal of Fluid Mechanics, 2000, 421, 185-227.  | 3.4 | 24        |
| 72 | Radial source flows in porous media: Linear stability analysis of axial and helical perturbations in miscible displacements. Physics of Fluids, 2003, 15, 938-946.                        | 4.0 | 24        |

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|----|---|-----|-----------|
| 73 | On gravity currents in stratified ambients. Physics of Fluids, 2007, 19, .  | 4.0 | 24        |
| 74 | The role of buoyancy reversal in turbidite deposition and submarine fan geometry. Geology, 2017, 45, 35-38.   | 4.4 | 24        |
| 75 | Internal bores: an improved model via a detailed analysis of the energy budget. Journal of Fluid<br>Mechanics, 2012, 703, 279-314.  | 3.4 | 23        |
| 76 | On the Causes of Pulsing in Continuous Turbidity Currents. Journal of Geophysical Research F: Earth<br>Surface, 2018, 123, 2827-2843.   | 2.8 | 23        |
| 77 | High-resolution simulations of turbidity currents. Progress in Earth and Planetary Science, 2017, 4, .  | 3.0 | 22        |
| 78 | Chemical fronts in Hele-Shaw cells: Linear stability analysis based on the three-dimensional Stokes equations. Physics of Fluids, 2003, 15, 597-602.  | 4.0 | 21        |
| 79 | Mixing dynamics of turbidity currents interacting with complex seafloor topography. Environmental Fluid Mechanics, 2018, 18, 201-223.   | 1.6 | 21        |
| 80 | Miscible porous media displacements in the quarter five-spot configuration. Part 3. Non-monotonic viscosity profiles. Journal of Fluid Mechanics, 1999, 388, 171-195.   | 3.4 | 19        |
| 81 | Variable density and viscosity, miscible displacements in horizontal Hele-Shaw cells. Part 2. Nonlinear simulations. Journal of Fluid Mechanics, 2013, 721, 295-323.  | 3.4 | 19        |
| 82 | The effect of streamwise braid vortices on the particle dispersion in a plane mixing layer. I.<br>Equilibrium points and their stability. Physics of Fluids, 1996, 8, 715-733.  | 4.0 | 18        |
| 83 | Miscible displacements in Hele–Shaw cells: Nonmonotonic viscosity profiles. European Journal of<br>Mechanics, B/Fluids, 2007, 26, 444-453.  | 2.5 | 18        |
| 84 | The effect of streamwise braid vortices on the particle dispersion in a plane mixing layer. II. Nonlinear particle dynamics. Physics of Fluids, 1996, 8, 734-753.   | 4.0 | 17        |
| 85 | Gravity currents from moving sources. Journal of Fluid Mechanics, 2021, 924, .  | 3.4 | 17        |
| 86 | Stabilization of miscible viscous fingering by a step growth polymerization reaction. Experiments in Fluids, 2018, 59, 1.   | 2.4 | 16        |
| 87 | Influence of seafloor topography on the depositional behavior of bi-disperse turbidity currents: a<br>three-dimensional, depth-resolved numerical investigation. Environmental Fluid Mechanics, 2014, 14,<br>319-342. | 1.6 | 15        |
| 88 | Turbidity currents propagating down a slope into a stratified saline ambient fluid. Environmental<br>Fluid Mechanics, 2019, 19, 1143-1166.  | 1.6 | 15        |
| 89 | An efficient cellular flow model for cohesive particle flocculation in turbulence. Journal of Fluid Mechanics, 2020, 889, .   | 3.4 | 15        |
| 90 | Coupling of vortex breakdown and stability in a swirling flow. Physical Review Fluids, 2019, 4, .   | 2.5 | 15        |

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|-----|---|-----|-----------|
| 91  | Particle dynamics and mixing in a viscously decaying shear layer. Journal of Fluid Mechanics, 1991, 227, 211-244.   | 3.4 | 14        |
| 92  | Density-driven instabilities of miscible fluids in a capillary tube: linear stability analysis. Journal of<br>Fluid Mechanics, 2003, 497, 99-121.   | 3.4 | 14        |
| 93  | Texture evolution of sheared liquid crystalline polymers: Numerical predictions of roll-cells<br>instability, director turbulence, and striped texture with a molecular model. Journal of Rheology,<br>2003, 47, 1417-1444. | 2.6 | 14        |
| 94  | Schlieren imaging of viscous fingering in a horizontal Hele-Shaw cell. Experiments in Fluids, 2016, 57, 1.  | 2.4 | 14        |
| 95  | Consolidation of freshly deposited cohesive and noncohesive sediment: Particle-resolved simulations. Physical Review Fluids, 2019, 4, .   | 2.5 | 14        |
| 96  | Vortex pairing in two-way coupled, particle laden mixing layers. International Journal of Multiphase<br>Flow, 2002, 28, 325-346.  | 3.4 | 13        |
| 97  | Modelling gravity currents without an energyÂclosure. Journal of Fluid Mechanics, 2016, 789, 806-829.   | 3.4 | 13        |
| 98  | Layer formation in sedimentary fingering convection. Journal of Fluid Mechanics, 2017, 816, 268-305.  | 3.4 | 13        |
| 99  | Mammatus cloud formation by settling and evaporation. Journal of Fluid Mechanics, 2020, 899, .  | 3.4 | 13        |
| 100 | Active swimmers interacting with stratified fluids during collective vertical migration. Journal of Fluid Mechanics, 2020, 902, .   | 3.4 | 13        |
| 101 | Flocculation of suspended cohesive particles in homogeneous isotropic turbulence. Journal of Fluid<br>Mechanics, 2021, 921, .   | 3.4 | 13        |
| 102 | A settling-driven instability in two-component, stably stratified fluids. Journal of Fluid Mechanics, 2017, 816, 243-267.   | 3.4 | 12        |
| 103 | Halite Precipitation From Doubleâ€Diffusive Salt Fingers in the Dead Sea: Numerical Simulations. Water<br>Resources Research, 2019, 55, 4252-4265.  | 4.2 | 12        |
| 104 | Density-driven instabilities in capillary tubes: Influence of a variable diffusion coefficient. Physics of<br>Fluids, 2006, 18, 048101.   | 4.0 | 11        |
| 105 | Deep-water sediment wave formation: linear stability analysis of coupled flow/bed interaction.<br>Journal of Fluid Mechanics, 2011, 680, 435-458.   | 3.4 | 11        |
| 106 | Towards inverse modeling of turbidity currents: The inverse lock-exchange problem. Computers and Geosciences, 2011, 37, 521-529.  | 4.2 | 11        |
| 107 | The effect of a crosslinking chemical reaction on pattern formation in viscous fingering of miscible fluids in a Hele–Shaw cell. Chaos, 2017, 27, 104614.   | 2.5 | 11        |
| 108 | Data-Driven, Multi-Model Workflow Suggests Strong Influence from Hurricanes on the Generation of Turbidity Currents in the Gulf of Mexico. Journal of Marine Science and Engineering, 2020, 8, 586.                         | 2.6 | 11        |

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| 109 | Influence of variable viscosity on density-driven instabilities in capillary tubes. Journal of Fluid<br>Mechanics, 2005, 525, 333-353.  | 3.4 | 10        |
| 110 | Direct numerical simulations of particle transport in a model estuary. Journal of Turbulence, 2010, 11, N39.  | 1.4 | 10        |
| 111 | Transition of a Hyperpycnal Flow Into a Saline Turbidity Current Due to Differential Diffusivities.<br>Geophysical Research Letters, 2018, 45, 11,875.  | 4.0 | 10        |
| 112 | Rheology of mobile sediment beds sheared by viscous, pressure-driven flows. Journal of Fluid<br>Mechanics, 2021, 921, .   | 3.4 | 10        |
| 113 | Three-dimensional Navier–Stokes simulations of buoyant, vertical miscible Hele-Shaw displacements.<br>Journal of Fluid Mechanics, 2014, 752, 157-183.   | 3.4 | 9         |
| 114 | Double-diffusive lock-exchange gravity currents. Journal of Fluid Mechanics, 2016, 797, 729-764.  | 3.4 | 9         |
| 115 | The shape evolution of liquid droplets in miscible environments. Journal of Fluid Mechanics, 2018, 852, 422-452.  | 3.4 | 9         |
| 116 | Grain-resolving simulations of submerged cohesive granular collapse. Journal of Fluid Mechanics, 2022, 942, .   | 3.4 | 9         |
| 117 | Gravity currents propagating into ambients with arbitrary shear and density stratification:<br>vorticityâ€based modelling. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 1359-1370. | 2.7 | 8         |
| 118 | Intrusive gravity currents propagating into two-layer stratified ambients: Vorticity modeling. Physical<br>Review Fluids, 2016, 1, .  | 2.5 | 8         |
| 119 | Partial-depth lock-release flows. Physical Review Fluids, 2017, 2, .  | 2.5 | 8         |
| 120 | Particle dynamics in a viscously decaying cat's eye: The effect of finite Schmidt numbers. Physics of<br>Fluids A, Fluid Dynamics, 1991, 3, 1068-1072.  | 1.6 | 7         |
| 121 | A computational model for heterogeneous flow through low headloss biofilter media.<br>Environmental Progress, 2002, 21, 11-19.  | 0.7 | 7         |
| 122 | Gravity currents over fixed beds of monodisperse spheres. Journal of Fluid Mechanics, 2020, 901, .  | 3.4 | 7         |
| 123 | How Does Coastal Gravel Get Sorted Under Stormy Longshore Transport?. Geophysical Research<br>Letters, 2021, 48, .  | 4.0 | 7         |
| 124 | Three-dimensional vorticity dynamics of miscible porous media flows. Journal of Turbulence, 2002, 3, N61.   | 1.4 | 6         |
| 125 | Miscible, Porous Media Displacements with Density Stratification. Annals of the New York Academy of Sciences, 2004, 1027, 342-359.  | 3.8 | 6         |
| 126 | Turbulent mixing and wave radiation in non-Boussinesq internal bores. Physics of Fluids, 2012, 24, 082106.  | 4.0 | 6         |

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| 127 | Gravity currents propagating into shear. Journal of Fluid Mechanics, 2015, 778, 552-585.   | 3.4 | 5         |
| 128 | Sediment Wave Formation Caused by Erosional and Depositional Turbidity Currents: A Numerical Investigation. Procedia IUTAM, 2015, 15, 26-33.                           | 1.2 | 5         |
| 129 | Saffman-Taylor Instability and the Inner Splitting Mechanism. Physical Review Letters, 2017, 118, 124502.  | 7.8 | 5         |
| 130 | Gravity currents propagating into two-layer stratified fluids: vorticity-based models. Journal of Fluid<br>Mechanics, 2018, 844, 994-1025.                             | 3.4 | 5         |
| 131 | The influence of shear on double-diffusive and settling-driven instabilities. Journal of Fluid<br>Mechanics, 2018, 849, 902-926.                                       | 3.4 | 5         |
| 132 | Hydroclimatic Controls on Salt Fluxes and Halite Deposition in the Dead Sea and the Shaping of "Salt<br>Giants― Geophysical Research Letters, 2020, 47, e2020GL090836. | 4.0 | 5         |
| 133 | Density-Driven Instabilities of Variable-Viscosity Miscible Fluids in a Capillary Tube. Annals of the New<br>York Academy of Sciences, 2004, 1027, 383-402.            | 3.8 | 4         |
| 134 | Miscible porous media displacements driven by non-vertical injection wells. Journal of Fluid Mechanics, 2008, 607, 289-312.  | 3.4 | 4         |
| 135 | Intrusions propagating into linearly stratifiedÂambients. Journal of Fluid Mechanics, 2018, 844, 956-969.  | 3.4 | 4         |
| 136 | Interaction of a downslope gravity current with an internal wave. Journal of Fluid Mechanics, 2019, 873, 889-913.  | 3.4 | 4         |
| 137 | Settling-driven large-scale instabilities in double-diffusive convection. Journal of Fluid Mechanics, 2020, 901, .   | 3.4 | 4         |
| 138 | Settling of a particle pair through a sharp, miscible density interface. Physical Review Fluids, 2021, 6, .  | 2.5 | 4         |
| 139 | Removal of a dense bottom layer by a gravity current. Journal of Fluid Mechanics, 2021, 916, .   | 3.4 | 4         |
| 140 | Plunging criterion for particle-laden flows over sloping bottoms: Three-dimensional turbulence-resolving simulations. Computers and Geosciences, 2021, 156, 104880.    | 4.2 | 4         |
| 141 | Clear salt water above sediment-laden fresh water: Interfacial instabilities. Physical Review Fluids, 2016, 1, .   | 2.5 | 4         |
| 142 | Particle-laden gravity currents interacting with stratified ambient water using direct numerical simulations. Environmental Earth Sciences, 2021, 80, 1.               | 2.7 | 4         |
| 143 | Miscible displacements in capillary tubes: Effect of a preexisting wall film. Physics of Fluids, 2004, 16, 602-609.  | 4.0 | 3         |
| 144 | Three-Dimensional Vorticity Configurations in Miscible Hele-Shaw Displacements. Procedia IUTAM, 2013, 7, 203-212.  | 1.2 | 3         |

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|-----|---|-----|-----------|
| 145 | Gravity currents with tailwaters in Boussinesq and non-Boussinesq systems: two-layer<br>shallow-water dam-break solutions and Navier–Stokes simulations. Environmental Fluid Mechanics,<br>2014, 14, 451-470.                 | 1.6 | 3         |
| 146 | Report on the Program "Fluid-mediated particle transport in geophysical flows―at the Kavli Institute<br>for Theoretical Physics, UC Santa Barbara, September 23 to December 12, 2013. Physics of Fluids, 2015, 27,<br>096601. | 4.0 | 2         |
| 147 | Double-diffusive sedimentation at high Schmidt numbers: Semi-Lagrangian simulations. Physical Review<br>Fluids, 2021, 6, .  | 2.5 | 2         |
| 148 | The mysterious grooves of Volcán Bárcena: a review of the role of streamwise counter-rotating vortices during erosion by dilute pyroclastic density currents. Bulletin of Volcanology, 2021, 83, 1.                           | 3.0 | 2         |
| 149 | Stress balance for a viscous flow with a single rolling particle. E3S Web of Conferences, 2018, 40, 04003.  | 0.5 | 1         |
| 150 | Numerical Investigation of Two-Way Coupling Mechanisms in Dilute, Particle Laden Flows. , 2003, ,<br>149-154.   |     | 1         |
| 151 | Physics of Cohesive Sediment Flocculation and Transport: State-of-the-Art Experimental and Numerical Techniques. , 0, , .   |     | 1         |
| 152 | The interactive dynamics of flow and directional solidification in a Hele-Shaw cell Part 2. Stability analysis and nonlinear simulations. Journal of Fluid Mechanics, 2002, 470, 269-290.                                     | 3.4 | 0         |
| 153 | Settling-driven instability in two-component stably stratified Hele-Shaw flows. Journal of Fluid<br>Mechanics, 2018, 843, .   | 3.4 | 0         |
| 154 | INTERACTIONS BETWEEN HELE-SHAW FLOWS AND DIRECTIONAL SOLIDIFICATION: NUMERICAL SIMULATIONS. , 2002, , 274-274.  |     | 0         |
| 155 | Instabilities of Miscible Interfaces. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 27-34.   | 0.2 | 0         |
| 156 | Gravity and Turbidity Currents: Numerical Simulations and Theoretical Models. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2018, , 129-180.   | 0.6 | 0         |