

Stuart B Dalziel

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

101
papers

2,936
citations

28
h-index

51
g-index

104
ext. papers

3,302
ext. citations

3.4
avg, IF

5.45
L-index

| # | Paper | IF | Citations |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 101 | Effects of background rotation on the dynamics of multiphase plumes. <i>Journal of Fluid Mechanics</i> , 2021 , 915, | 3.7 | 1 |
| 100 | Metal-silicate mixing by large Earth-forming impacts. <i>Earth and Planetary Science Letters</i> , 2021 , 564, 116888 | 3.9 | 4 |
| 99 | Harmonics from a magic carpet. <i>Journal of Fluid Mechanics</i> , 2021 , 911, | 3.7 | 1 |
| 98 | Experimental evidence of internal wave attractor signatures hidden in large-amplitude multi-frequency wave fields. <i>Journal of Fluid Mechanics</i> , 2021 , 915, | 3.7 | 2 |
| 97 | Rayleigh–Taylor instability between unequally stratified layers. <i>Physica D: Nonlinear Phenomena</i> , 2021 , 423, 132907 | 3.3 | 1 |
| 96 | Air Flow Experiments on a Train Carriage—Towards Understanding the Risk of Airborne Transmission. <i>Atmosphere</i> , 2021 , 12, 1267 | 2.7 | 4 |
| 95 | Effects of ventilation on the indoor spread of COVID-19. <i>Journal of Fluid Mechanics</i> , 2020 , 903, F1 | 3.7 | 127 |
| 94 | A versatile scanning method for volumetric measurements of velocity and density fields. <i>Measurement Science and Technology</i> , 2019 , 30, 055203 | 2 | 6 |
| 93 | The granular Blasius problem. <i>Journal of Fluid Mechanics</i> , 2019 , 872, 784-817 | 3.7 | 3 |
| 92 | Neutron imaging and modelling inclined vortex driven thin films. <i>Scientific Reports</i> , 2019 , 9, 2817 | 4.9 | 7 |
| 91 | The magic carpet: an arbitrary spectrum wave maker for internal waves. <i>Experiments in Fluids</i> , 2019 , 60, 1 | 2.5 | 3 |
| 90 | Interaction between the Blasius boundary layer and a free surface. <i>Journal of Fluid Mechanics</i> , 2018 , 839, | 3.7 | 4 |
| 89 | Vortex-ring-induced stratified mixing: mixing model. <i>Journal of Fluid Mechanics</i> , 2018 , 837, 129-146 | 3.7 | 4 |
| 88 | The structure and origin of confined Holmboe waves. <i>Journal of Fluid Mechanics</i> , 2018 , 848, 508-544 | 3.7 | 16 |
| 87 | Three-dimensional visualization of the interaction of a vortex ring with a stratified interface. <i>Journal of Fluid Mechanics</i> , 2017 , 820, 549-579 | 3.7 | 13 |
| 86 | Inclined gravity currents filling basins: the impact of peeling detrainment on transport and vertical structure. <i>Journal of Fluid Mechanics</i> , 2017 , 820, 400-423 | 3.7 | 11 |
| 85 | Anticyclonic precession of a plume in a rotating environment. <i>Geophysical Research Letters</i> , 2017 , 44, 9400-9407 | 4.9 | 9 |

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| 84 | Turbulent jets with off-source heating. <i>Journal of Fluid Mechanics</i> , 2017 , 824, 766-784 | 3.7 | 1 |
| 83 | The synthesis of di-carboxylate esters using continuous flow vortex fluidics. <i>Green Chemistry</i> , 2016 , 18, 2193-2200 | 10 | 30 |
| 82 | Particle image velocimetry and modelling of horizontal coherent liquid jets impinging on and draining down a vertical wall. <i>Experimental Thermal and Fluid Science</i> , 2016 , 74, 429-443 | 3 | 11 |
| 81 | Particle organization after viscous sedimentation in tilted containers. <i>Physics of Fluids</i> , 2016 , 28, 073304 | 4.4 | 8 |
| 80 | Convective mass transfer from a submerged drop in a thin falling film. <i>Journal of Fluid Mechanics</i> , 2016 , 789, 630-668 | 3.7 | 5 |
| 79 | Using stratification to mitigate end effects in quasi-Keplerian Taylor-Couette flow. <i>Journal of Fluid Mechanics</i> , 2016 , 791, 608-630 | 3.7 | 7 |
| 78 | Cleaning of viscous drops on a flat inclined surface using gravity-driven film flows. <i>Food and Bioproducts Processing</i> , 2015 , 93, 310-317 | 4.9 | 10 |
| 77 | Vortex rings impinging on permeable boundaries. <i>Physics of Fluids</i> , 2015 , 27, 015106 | 4.4 | 7 |
| 76 | Continuous flow Fischer esterifications harnessing vibrational-coupled thin film fluidics. <i>RSC Advances</i> , 2015 , 5, 1655-1660 | 3.7 | 24 |
| 75 | On the meaning of mixing efficiency for buoyancy-driven mixing in stratified turbulent flows. <i>Journal of Fluid Mechanics</i> , 2015 , 781, 261-275 | 3.7 | 14 |
| 74 | Vortex-ring-induced stratified mixing. <i>Journal of Fluid Mechanics</i> , 2015 , 781, 113-126 | 3.7 | 9 |
| 73 | Inclined gravity currents filling basins: The influence of Reynolds number on entrainment into gravity currents. <i>Physics of Fluids</i> , 2015 , 27, 096602 | 4.4 | 6 |
| 72 | The evolution of a stratified turbulent cloud. <i>Journal of Fluid Mechanics</i> , 2014 , 739, 229-253 | 3.7 | 12 |
| 71 | Bedload transport by a vertical jet impinging upon sediments. <i>Physics of Fluids</i> , 2014 , 26, 035103 | 4.4 | 10 |
| 70 | Bursting water balloons. <i>Journal of Fluid Mechanics</i> , 2014 , 756, 771-815 | 3.7 | 4 |
| 69 | Efficient mixing in stratified flows: experimental study of a Rayleigh-Taylor unstable interface within an otherwise stable stratification. <i>Journal of Fluid Mechanics</i> , 2014 , 756, 1027-1057 | 3.7 | 36 |
| 68 | Evolution of the Leading-Edge Vortex over an Accelerating Rotating Wing. <i>Procedia IUTAM</i> , 2013 , 7, 233-242 | | 9 |
| 67 | Resuspension onset and crater erosion by a vortex ring interacting with a particle layer. <i>Physics of Fluids</i> , 2012 , 24, 063301 | 4.4 | 15 |

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| 66 | The structure of low-Froude-number lee waves over an isolated obstacle. <i>Journal of Fluid Mechanics</i> , 2011 , 689, 3-31 | 3.7 | 9 |
| 65 | Rayleigh-Taylor mixing in an otherwise stable stratification. <i>Journal of Fluid Mechanics</i> , 2011 , 688, 507-523 | 3.7 | 28 |
| 64 | The twists and turns of rotating turbulence. <i>Journal of Fluid Mechanics</i> , 2011 , 666, 1-4 | 3.7 | 3 |
| 63 | Tomographic reconstruction of internal wave patterns in a paraboloid. <i>Experiments in Fluids</i> , 2011 , 50, 247-258 | 2.5 | 21 |
| 62 | Comparison of laboratory and numerically observed scalar fields of an internal wave attractor. <i>European Journal of Mechanics, B/Fluids</i> , 2011 , 30, 51-56 | 2.4 | 18 |
| 61 | Turbulent diffusion in tall tubes. II. Confinement by stratification. <i>Physics of Fluids</i> , 2011 , 23, 085110 | 4.4 | 12 |
| 60 | Turbulent diffusion in tall tubes. I. Models for Rayleigh-Taylor instability. <i>Physics of Fluids</i> , 2011 , 23, 085109 | 4.4 | 24 |
| 59 | Observations on the robustness of internal wave attractors to perturbations. <i>Physics of Fluids</i> , 2010 , 22, 107102 | 4.4 | 15 |
| 58 | Small Atwood number Rayleigh-Taylor experiments. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010 , 368, 1663-79 | 3 | 37 |
| 57 | Observations on Rapidly Rotating Turbulence. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2010 , 95-104 | 0.3 | |
| 56 | Simultaneous particle image velocimetry and synthetic schlieren measurements of an erupting thermal plume. <i>Measurement Science and Technology</i> , 2009 , 20, 125402 | 2 | 8 |
| 55 | Synthetic schlieren: Determination of the density gradient generated by internal waves propagating in a stratified fluid. <i>Journal of Physics: Conference Series</i> , 2009 , 166, 012007 | 0.3 | 4 |
| 54 | Sediment resuspension and erosion by vortex rings. <i>Physics of Fluids</i> , 2009 , 21, 046601 | 4.4 | 44 |
| 53 | A new nozzle for dissolved air flotation. <i>Water Science and Technology: Water Supply</i> , 2009 , 9, 611-617 | 1.4 | 1 |
| 52 | Mixing efficiency in high-aspect-ratio Rayleigh-Taylor experiments. <i>Physics of Fluids</i> , 2008 , 20, 065106 | 4.4 | 50 |
| 51 | Structure formation in homogeneous freely decaying rotating turbulence. <i>Journal of Fluid Mechanics</i> , 2008 , 598, 81-105 | 3.7 | 93 |
| 50 | Observations on the wavenumber spectrum and evolution of an internal wave attractor. <i>Journal of Fluid Mechanics</i> , 2008 , 598, 373-382 | 3.7 | 45 |
| 49 | Temporal variation of non-ideal plumes with sudden reductions in buoyancy flux. <i>Journal of Fluid Mechanics</i> , 2008 , 600, 181-199 | 3.7 | 15 |

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|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| 48 | On the Large Scale Evolution of Rotating Turbulence. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2008 , 391-396 | 0.3 | |
| 47 | Local implications for self-similar turbulent plume models. <i>Journal of Fluid Mechanics</i> , 2007 , 575, 257-265,7 | 10 | |
| 46 | Simultaneous synthetic schlieren and PIV measurements for internal solitary waves. <i>Measurement Science and Technology</i> , 2007 , 18, 533-547 | 2 | 58 |
| 45 | Experimental studies of rotating exchange flow. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2007 , 54, 269-291 | 2.5 | 2 |
| 44 | Structure Formation in Homogeneous Rotating Turbulence 2007 , 612-614 | | |
| 43 | Vortical motion in the head of an axisymmetric gravity current. <i>Physics of Fluids</i> , 2006 , 18, 046601 | 4.4 | 36 |
| 42 | Time-dependent mixing in stratified Kelvin-Helmholtz billows: Experimental observations. <i>Geophysical Research Letters</i> , 2006 , 33, | 4.9 | 22 |
| 41 | Axisymmetric gravity currents on a cone. <i>Journal of Fluid Mechanics</i> , 2006 , 565, 227 | 3.7 | 17 |
| 40 | Internal wave fields generated by a translating body in a stratified fluid: an experimental comparison. <i>Journal of Fluid Mechanics</i> , 2006 , 564, 305 | 3.7 | 21 |
| 39 | Time-dependent plumes and jets with decreasing source strengths. <i>Journal of Fluid Mechanics</i> , 2006 , 563, 443 | 3.7 | 56 |
| 38 | Boussinesq plumes and jets with decreasing source strengths in stratified environments. <i>Journal of Fluid Mechanics</i> , 2006 , 563, 463 | 3.7 | 22 |
| 37 | On the evolution of eddies in a rapidly rotating system. <i>Journal of Fluid Mechanics</i> , 2006 , 557, 135 | 3.7 | 77 |
| 36 | An experimental study of the bulk properties of vortex rings translating through a stratified fluid. <i>European Journal of Mechanics, B/Fluids</i> , 2006 , 25, 302-320 | 2.4 | 8 |
| 35 | Rayleigh-Taylor instability in complex stratifications. <i>Journal of Fluid Mechanics</i> , 2005 , 542, 251 | 3.7 | 29 |
| 34 | Numerical modelling of two-dimensional and axisymmetric gravity currents. <i>International Journal for Numerical Methods in Fluids</i> , 2005 , 47, 1221-1227 | 1.9 | 12 |
| 33 | Attenuation technique for measuring sediment displacement levels. <i>Experiments in Fluids</i> , 2005 , 39, 602-613 | 18 | |
| 32 | A dynamic masking technique for combined measurements of PIV and synthetic schlieren applied to internal gravity waves. <i>Measurement Science and Technology</i> , 2005 , 16, 1954-1960 | 2 | 19 |
| 31 | Bubble size distribution in dissolved air flotation tanks 2004 , 53, 531-543 | | 33 |

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| 30 | A pattern matching technique for measuring sediment displacement levels. <i>Experiments in Fluids</i> , 2004 , 37, 399-408 | 2.5 | 10 |
| 29 | Gravity currents produced by lock exchange. <i>Journal of Fluid Mechanics</i> , 2004 , 521, 1-34 | 3.7 | 275 |
| 28 | Internal wave fields and drag generated by a translating body in a stratified fluid. <i>Journal of Fluid Mechanics</i> , 2004 , 498, 289-313 | 3.7 | 17 |
| 27 | The drag on a vertically moving grid of bars in a linearly stratified fluid. <i>Experiments in Fluids</i> , 2003 , 34, 678-686 | 2.5 | 12 |
| 26 | The structure of the head of an inertial gravity current determined by particle-tracking velocimetry. <i>Experiments in Fluids</i> , 2003 , 34, 708-716 | 2.5 | 33 |
| 25 | Fluid displacement by Stokes flow past a spherical droplet. <i>Journal of Fluid Mechanics</i> , 2003 , 485, 67-85 | 3.7 | 26 |
| 24 | Rayleigh-Taylor instability at a tilted interface in laboratory experiments and numerical simulations. <i>Laser and Particle Beams</i> , 2003 , 21, 419-423 | 0.9 | 15 |
| 23 | Particle resuspension by an impacting vortex ring 2003 , 105-108 | | 2 |
| 22 | A study of three-dimensional gravity currents on a uniform slope. <i>Journal of Fluid Mechanics</i> , 2002 , 453, 239-261 | 3.7 | 43 |
| 21 | A light attenuation technique for void fraction measurement of microbubbles. <i>Experiments in Fluids</i> , 2001 , 30, 214-220 | 2.5 | 15 |
| 20 | Resuspension by saline and particle-driven gravity currents. <i>Journal of Geophysical Research</i> , 2001 , 106, 14095-14111 | | 7 |
| 19 | Whole-field density measurements by synthetic schlieren <i>Experiments in Fluids</i> , 2000 , 28, 322-335 | 2.5 | 236 |
| 18 | Dust resuspension by the flow around an impacting sphere. <i>Journal of Fluid Mechanics</i> , 2000 , 403, 305-328 | 3.7 | 59 |
| 17 | Internal waves revisited. <i>Dynamics of Atmospheres and Oceans</i> , 2000 , 31, 209-232 | 1.9 | 18 |
| 16 | Self-similarity and internal structure of turbulence induced by Rayleigh-Taylor instability. <i>Journal of Fluid Mechanics</i> , 1999 , 399, 1-48 | 3.7 | 180 |
| 15 | Saline and particle-driven interfacial intrusions. <i>Journal of Fluid Mechanics</i> , 1999 , 389, 303-334 | 3.7 | 31 |
| 14 | Visualization and measurement of internal waves by synthetic schlieren <i>Part 1. Vertically oscillating cylinder. Journal of Fluid Mechanics</i> , 1999 , 390, 93-126 | 3.7 | 127 |
| 13 | Electrical measurement of sediment layer thickness under suspension flows. <i>Experiments in Fluids</i> , 1999 , 26, 470-474 | 2.5 | 19 |

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| 12 | Experimental investigations of quasi-two-dimensional vortices in a stratified fluid with source-sink forcing. <i>Journal of Fluid Mechanics</i> , 1999 , 383, 249-283 | 3.7 | 9 |
| 11 | Mixing in lock-release gravity currents. <i>Dynamics of Atmospheres and Oceans</i> , 1996 , 24, 183-195 | 1.9 | 115 |
| 10 | Measurements of layer depth during baroclinic instability in a two-layer flow. <i>Flow, Turbulence and Combustion</i> , 1996 , 56, 191-207 | | 17 |
| 9 | Experiments on Turbulence in Stratified Rotating Flows. <i>Fluid Mechanics and Its Applications</i> , 1996 , 317-330 | | |
| 8 | Source-sink turbulence in a rotating stratified fluid. <i>Journal of Fluid Mechanics</i> , 1995 , 298, 81-112 | 3.7 | 27 |
| 7 | Source-sink turbulence in a stratified fluid. <i>Journal of Fluid Mechanics</i> , 1994 , 261, 273-303 | 3.7 | 19 |
| 6 | Rayleigh-Taylor instability: experiments with image analysis. <i>Dynamics of Atmospheres and Oceans</i> , 1993 , 20, 127-153 | 1.9 | 80 |
| 5 | Maximal Exchange in Channels with Nonrectangular Cross Sections. <i>Journal of Physical Oceanography</i> , 1992 , 22, 1188-1206 | 2.4 | 26 |
| 4 | Decay of rotating turbulence: some particle tracking experiments. <i>Flow, Turbulence and Combustion</i> , 1992 , 49, 217-244 | | 78 |
| 3 | The hydraulics of doorway exchange flows. <i>Building and Environment</i> , 1991 , 26, 121-135 | 6.5 | 32 |
| 2 | Two-layer hydraulics: a functional approach. <i>Journal of Fluid Mechanics</i> , 1991 , 223, 135 | 3.7 | 89 |
| 1 | Time- and Space-Resolved Measurements of Deposition under Turbidity Currents | | 16 |