

# Daniel Henry

## List of Publications by Year in descending order

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112  
papers

1,740  
citations

279487

23  
h-index

360668

35  
g-index

112  
all docs

112  
docs citations

112  
times ranked

767  
citing authors

#	ARTICLE	IF	CITATIONS
1	Marangoni convection in binary mixtures with Soret effect. <i>Journal of Fluid Mechanics</i> , 1998, 375, 143-177.	1.4	98
2	Numerical study of convection in the horizontal Bridgman configuration under the action of a constant magnetic field. Part 2. Three-dimensional flow. <i>Journal of Fluid Mechanics</i> , 1997, 333, 57-83.	1.4	88
3	Numerical study of convection in the horizontal Bridgman configuration under the action of a constant magnetic field. Part 1. Two-dimensional flow. <i>Journal of Fluid Mechanics</i> , 1997, 333, 23-56.	1.4	80
4	On the onset of convective instabilities in cylindrical cavities heated from below. I. Pure thermal case. <i>Physics of Fluids</i> , 1999, 11, 2078-2088.	1.6	68
5	Scaling and dimensional analysis of acoustic streaming jets. <i>Physics of Fluids</i> , 2014, 26, .	1.6	58
6	Three-dimensional free convection in molten gallium. <i>Journal of Fluid Mechanics</i> , 2001, 436, 267-281.	1.4	50
7	Magnetohydrodynamic convection in molten gallium. <i>Journal of Fluid Mechanics</i> , 1999, 378, 97-118.	1.4	49
8	Magnetic stabilization of the buoyant convection between infinite horizontal walls with a horizontal temperature gradient. <i>Journal of Fluid Mechanics</i> , 2003, 480, 185-216.	1.4	48
9	Numerical study of coupled electromagnetic and aerothermodynamic phenomena in a circuit breaker electric arc. <i>International Journal of Heat and Mass Transfer</i> , 1999, 42, 1723-1734.	2.5	39
10	Two- and three-dimensional numerical simulations of the transition to oscillatory convection in low-Prandtl-number fluids. <i>Journal of Fluid Mechanics</i> , 1998, 374, 145-171.	1.4	36
11	Interface curvature and convection related macrosegregation in the vertical Bridgman configuration. <i>Journal of Crystal Growth</i> , 1996, 158, 144-152.	0.7	33
12	On the onset of oscillatory convection in molten gallium. <i>Journal of Fluid Mechanics</i> , 2004, 515, 391-413.	1.4	33
13	Stability of convection in a horizontal channel subjected to a longitudinal temperature gradient. Part 1. Effect of aspect ratio and Prandtl number. <i>Journal of Fluid Mechanics</i> , 2009, 635, 275-295.	1.4	33
14	Measurement of Soret and Fickian diffusion coefficients by orthogonal phase-shifting interferometry and its application to protein aqueous solutions. <i>Journal of Chemical Physics</i> , 2013, 139, 074203.	1.2	33
15	Numerical simulation of convective three-dimensional flows in a horizontal cylinder under the action of a constant magnetic field. <i>Journal of Crystal Growth</i> , 1996, 166, 436-445.	0.7	32
16	Buoyancy-driven instability in a vertical cylinder: Binary fluids with Soret effect. Part I: General theory and stationary stability results. <i>International Journal for Numerical Methods in Fluids</i> , 1990, 10, 79-117.	0.9	31
17	Macrosegregation and convection in the horizontal Bridgman configuration I. Dilute alloys. <i>Journal of Crystal Growth</i> , 1994, 135, 341-353.	0.7	31
18	Bifurcation analysis of steady natural convection in a tilted cubical cavity with adiabatic sidewalls. <i>Journal of Fluid Mechanics</i> , 2014, 756, 650-688.	1.4	28

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19	Multiple flow transitions in a box heated from the side in low-Prandtl-number fluids. <i>Physical Review E</i> , 2007, 76, 016314.	0.8	27
20	On the onset of convective instabilities in cylindrical cavities heated from below. II. Effect of a magnetic field. <i>Physics of Fluids</i> , 1999, 11, 2089-2100.	1.6	25
21	Three-dimensional numerical study of natural convection in vertical cylinders partially heated from the side. <i>Physics of Fluids</i> , 2005, 17, 124101.	1.6	25
22	Theoretical and numerical study on high frequency vibrational convection: Influence of the vibration direction on the flow structure. <i>Physics of Fluids</i> , 2019, 31, .	1.6	25
23	Inertialess temporal and spatio-temporal stability analysis of the two-layer film flow with density stratification. <i>Physics of Fluids</i> , 2006, 18, 104101.	1.6	24
24	Near-field acoustic streaming jet. <i>Physical Review E</i> , 2015, 91, 033011.	0.8	24
25	Unsteady three-dimensional buoyancy-driven convection in a circular cylindrical cavity and its damping by magnetic field. <i>Journal of Crystal Growth</i> , 1997, 180, 433-441.	0.7	22
26	Macroseggregations in Sn-3 wt%Pb alloy solidification: Experimental and 3D numerical simulation investigations. <i>International Journal of Heat and Mass Transfer</i> , 2016, 100, 680-690.	2.5	22
27	Magnetic stabilization of the buoyant convection in the liquid-encapsulated Czochralski process. <i>Journal of Crystal Growth</i> , 2002, 243, 108-116.	0.7	21
28	Linear temporal and spatio-temporal stability analysis of a binary liquid film flowing down an inclined uniformly heated plate. <i>Journal of Fluid Mechanics</i> , 2008, 599, 269-298.	1.4	20
29	Numerical study of natural convection and acoustic waves using the lattice Boltzmann method. <i>Heat Transfer</i> , 2020, 49, 3779-3796.	1.7	20
30	Linear stability analysis of Poiseuille-Rayleigh-B�nard flows in binary fluids with Soret effect. <i>Physics of Fluids</i> , 2007, 19, 034101.	1.6	19
31	Macrosegregation and convection in the horizontal Bridgman configuration II. Concentrated alloys. <i>Journal of Crystal Growth</i> , 1994, 141, 279-290.	0.7	16
32	Numerical study of the influence of a longitudinal sound field on natural convection in a cavity. <i>International Journal of Heat and Mass Transfer</i> , 2006, 49, 3601-3616.	2.5	16
33	Influence of acoustic streaming on the stability of a laterally heated three-dimensional cavity. <i>Physical Review E</i> , 2008, 77, 046311.	0.8	16
34	Transition from multiplicity to singularity of steady natural convection in a tilted cubical enclosure. <i>Physical Review E</i> , 2015, 92, 023031.	0.8	16
35	Stability of a flow down an incline with respect to two-dimensional and three-dimensional disturbances for Newtonian and non-Newtonian fluids. <i>Physical Review E</i> , 2015, 92, 063010.	0.8	16
36	Three-dimensional Marangoni-B�nard flows in square and nearly square containers. <i>Physics of Fluids</i> , 2001, 13, 92-98.	1.6	15

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37	Influence of acoustic streaming on the stability of melt flows in horizontal Bridgman configurations. <i>Journal of Crystal Growth</i> , 2008, 310, 1546-1551.	0.7	15
38	Rotating magnetic field effect on convection and its stability in a horizontal cylinder subjected to a longitudinal temperature gradient. <i>Journal of Fluid Mechanics</i> , 2010, 664, 108-137.	1.4	15
39	Stability of buoyant convection in a layer submitted to acoustic streaming. <i>Physical Review E</i> , 2010, 81, 056309.	0.8	15
40	Experimental investigation of hysteresis in the break-up of liquid curtains. <i>Chemical Engineering Science</i> , 2014, 117, 248-263.	1.9	15
41	Primary instability of a shear-thinning film flow down an incline: experimental study. <i>Journal of Fluid Mechanics</i> , 2017, 821, .	1.4	15
42	Analysis of the unsteady segregation in crystal growth from a melt. <i>Journal of Crystal Growth</i> , 1999, 204, 213-223.	0.7	14
43	Instabilities in liquid metals controlled by constant magnetic fieldâ€”Part II: horizontal magnetic field. <i>Journal of Crystal Growth</i> , 2002, 242, 501-510.	0.7	14
44	Stability of convection in a horizontal channel subjected to a longitudinal temperature gradient. Part 2. Effect of a magnetic field. <i>Journal of Fluid Mechanics</i> , 2009, 635, 297-319.	1.4	14
45	Three-dimensional continuation study of convection in a tilted rectangular enclosure. <i>Physical Review E</i> , 2013, 88, 043015.	0.8	14
46	Three-Dimensional Lattice Boltzmann Model for Acoustic Waves Emitted by a Source. <i>International Journal of Computational Fluid Dynamics</i> , 2021, 35, 850-871.	0.5	14
47	Marangoni-BÃ©nard instability in microgravity conditions with Soret effect. <i>International Journal of Heat and Mass Transfer</i> , 1994, 37, 1545-1562.	2.5	13
48	Instabilities in liquid metals controlled by constant magnetic fieldâ€”Part I: vertical magnetic field. <i>Journal of Crystal Growth</i> , 2002, 242, 491-500.	0.7	13
49	Linear temporal and spatiotemporal stability analysis of two-layer falling films with density stratification. <i>Physical Review E</i> , 2008, 77, 026302.	0.8	13
50	Oscillating acoustic streaming jet. <i>Applied Physics Letters</i> , 2014, 105, 184102.	1.5	13
51	Soret separation in a quasi-vertical cylinder. <i>Journal of Fluid Mechanics</i> , 1988, 195, 175.	1.4	12
52	On the effect of natural convection on solute segregation in the horizontal Bridgman configuration: Convergence of a theoretical model with numerical and experimental data. <i>Journal of Crystal Growth</i> , 2015, 409, 89-94.	0.7	12
53	Three-dimensional numerical study of convection in a cylindrical thermal diffusion cell: Its influence on the separation of constituents. <i>Physics of Fluids</i> , 1986, 29, 3562.	1.4	11
54	Experimental determination of the viscosity at very low shear rate for shear thinning fluids by electrocapillarity. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2015, 215, 60-69.	1.0	11

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55	Acoustic streaming enhanced mass transfer at a wall. International Journal of Heat and Mass Transfer, 2021, 172, 121090.	2.5	11
56	Low-order dynamical model for low-Prandtl number fluid flow in a laterally heated cavity. Physics of Fluids, 2003, 15, 2152-2162.	1.6	10
57	Three-dimensional modelling of electric-arc development in a low-voltage circuit-breaker. International Journal of Heat and Mass Transfer, 2008, 51, 4973-4984.	2.5	10
58	Directional effect of a magnetic field on oscillatory low-Prandtl-number convection. Physics of Fluids, 2008, 20, .	1.6	10
59	Instabilities in a cylindrical cavity heated from below with a free surface. I. Effect of Biot and Marangoni numbers. Physical Review E, 2011, 84, 056302.	0.8	10
60	Instabilities in the Rayleigh-Bénard-Eckart problem. Physical Review E, 2012, 86, 016312.	0.8	10
61	From flying wheel to square flow: Dynamics of a flow driven by acoustic forcing. Physical Review Fluids, 2017, 2, .	1.0	10
62	Three-dimensional numerical study of convection in a cylindrical thermal diffusion cell: Inclination effect. Physics of Fluids, 1987, 30, 1656.	1.4	9
63	On the effect of thermodiffusion on solute segregation during the growth of semiconductor materials by the vertical Bridgman method. Journal of Crystal Growth, 2017, 458, 154-165.	0.7	9
64	Influence de l'acoustic streaming sur la stabilité d'une couche de fluide isotherme ou chauffée latéralement. Comptes Rendus - Mécanique, 2007, 335, 175-180.	2.1	8
65	Stability of two-layer shear-thinning film flows. Physical Review E, 2013, 88, 043004.	0.8	8
66	Study of the hydrodynamic instabilities in a differentially heated horizontal circular cylinder corresponding to a Bridgman growth configuration. Journal of Crystal Growth, 2006, 290, 674-682.	0.7	7
67	Multiple flow solutions in buoyancy induced convection in a porous square box. Water Resources Research, 2012, 48, .	1.7	7
68	A $2D^{1/2}$ model for low Prandtl number convection in an enclosure. International Journal of Thermal Sciences, 2013, 71, 53-60.	2.6	7
69	Transition to chaos in an acoustically driven cavity flow. Physical Review Fluids, 2019, 4, .	1.0	7
70	Three-dimensional effect of high frequency vibration on convection in silicon melt. Physical Review Fluids, 2020, 5, .	1.0	7
71	Selective control of Poiseuille-Rayleigh-Bénard instabilities by a spanwise magnetic field. Physics of Fluids, 2010, 22, 034103.	1.6	6
72	Acoustic force model for the fluid flow under standing waves. Applied Acoustics, 2011, 72, 754-759.	1.7	6

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73	Y-shaped jets driven by an ultrasonic beam reflecting on a wall. <i>Ultrasonics</i> , 2016, 68, 33-42.	2.1	6
74	Analysis of the unsteady segregation in crystal growth from a melt Part II: Fluctuating convection velocity. <i>Journal of Crystal Growth</i> , 2000, 220, 166-175.	0.7	5
75	Stabilization of thermogravitational flows by magnetic field and surface tension. <i>Physics of Fluids</i> , 2005, 17, 054106.	1.6	5
76	Instabilités de Rayleigh-Bénard sous vibrations hautes fréquences et champ magnétique. <i>Comptes Rendus - Mécanique</i> , 2009, 337, 291-296.	2.1	5
77	Multi-layer film flow down an inclined plane: experimental investigation. <i>Experiments in Fluids</i> , 2014, 55, 1.	1.1	5
78	Towards wall functions for the prediction of solute segregation in plane front directional solidification. <i>Journal of Crystal Growth</i> , 2017, 475, 55-69.	0.7	5
79	Bifurcations from steady to quasi-periodic flows in a laterally heated cavity filled with low Prandtl number fluids. <i>Journal of Fluid Mechanics</i> , 2019, 861, 223-252.	1.4	5
80	Numerical simulation study of acoustic waves propagation and streaming using MRT-lattice Boltzmann method. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2023, 24, 62-75.	1.4	5
81	Soret effect and slow mass diffusion as a catalyst for overstability in Marangoni-Bénard flows. <i>Heat and Mass Transfer</i> , 2003, 40, 105-114.	1.2	4
82	Spatiotemporal evolution of Poiseuille-Rayleigh-Bénard flows in binary fluids with Soret effect under initial pulselike disturbances. <i>Physical Review E</i> , 2009, 80, 026312.	0.8	4
83	Instabilities in a cylindrical cavity heated from below with a free surface. II. Effect of a horizontal magnetic field. <i>Physical Review E</i> , 2011, 84, 056303.	0.8	4
84	Linear global analysis of Rayleigh-Bénard instabilities in binary fluids with and without throughflow. <i>Journal of Fluid Mechanics</i> , 2012, 713, 216-242.	1.4	4
85	A 2D1/2 model for natural convection and solidification in a narrow enclosure. <i>International Journal of Thermal Sciences</i> , 2019, 140, 167-183.	2.6	4
86	Primary instability of a visco-plastic film down an inclined plane: experimental study. <i>Journal of Fluid Mechanics</i> , 2021, 922, .	1.4	4
87	2D and 3D Marangoni pattern selection in shallow cavities. <i>Advances in Space Research</i> , 1998, 22, 1223-1226.	1.2	3
88	MHD damped convection under non uniform magnetic fields. <i>Advances in Space Research</i> , 1998, 22, 1213-1216.	1.2	3
89	Solidification in Bridgman configuration with solutally induced flow. <i>Journal of Crystal Growth</i> , 2001, 230, 188-194.	0.7	3
90	Effet d'un champ magnétique transversal sur la stabilité de l'écoulement de Hartmann : les modes tridimensionnels. <i>Comptes Rendus - Mécanique</i> , 2005, 333, 447-451.	2.1	3

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91	Stabilité de l'écoulement de Hartmann chauffé par le bas. Comptes Rendus - Mécanique, 2006, 334, 332-339.	2.1	3
92	Effect of high frequency vibrations on PV silicon purification. Journal of Crystal Growth, 2020, 529, 125298.	0.7	3
93	Effect of rotation on the stability of side-heated buoyant convection between infinite horizontal walls. Physical Review Fluids, 2017, 2, .	1.0	3
94	Numerical simulation of 3D convective motion disturbing the Soret separation of the two components of a binary fluid mixture. Advances in Space Research, 1986, 6, 141-146.	1.2	2
95	Note on braking and stabilization laws for buoyant flows under a weak magnetic field. Fluid Dynamics Research, 2003, 33, 287-297.	0.6	2
96	Multiple modes of instability in a box heated from the side in low-Prandtl-number fluids. Physics of Fluids, 2007, 19, 081702.	1.6	2
97	Magnetic stabilization of melt flows in horizontal Bridgman configurations. Journal of Crystal Growth, 2008, 310, 1533-1539.	0.7	2
98	Influence de l'acoustic streaming sur les instabilités affectant une couche de fluide chauffé latéralement. Comptes Rendus - Mécanique, 2009, 337, 238-244.	2.1	2
99	Transient growth in Poiseuille-Rayleigh-Bénard flows of binary fluids with Soret effect. Applied Mathematics and Mechanics (English Edition), 2016, 37, 1203-1218.	1.9	2
100	Rayleigh-Bénard flow for a Carreau fluid in a parallelepiped cavity. Journal of Fluid Mechanics, 2022, 936, .	1.4	2
101	Effet de l'orientation d'un champ magnétique horizontal sur la stabilité de l'écoulement de Hadley. Comptes Rendus - Mécanique, 2003, 331, 431-436.	2.1	1
102	An application of proper orthogonal decomposition to the stability analysis of Czochralski melt flows. Journal of Crystal Growth, 2007, 306, 166-176.	0.7	1
103	Effect of a weak polar misalignment of the magnetic field on the stabilization of the Hadley flow. Journal of Crystal Growth, 2007, 306, 473-479.	0.7	1
104	Acoustic streaming jets: A scaling and dimensional analysis. AIP Conference Proceedings, 2015, .	0.3	1
105	Stability of an unsupported multi-layer surfactant laden liquid curtain under gravity. Journal of Engineering Mathematics, 2016, 99, 119-136.	0.6	1
106	An efficient 1D numerical model adapted to the study of transient convecto-diffusive heat and mass transfer in directional solidification. International Journal of Heat and Mass Transfer, 2017, 110, 209-218.	2.5	1
107	TOWARDS THREE-DIMENSIONAL MODELLING OF ELECTRIC ARC INITIATION IN A LOW-VOLTAGE CIRCUIT BREAKER. High Temperature Material Processes, 2005, 9, 557-571.	0.2	1
108	Chaotic mixing in an acoustically driven cavity flow. Physical Review Fluids, 2022, 7, .	1.0	1

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109	Instabilities and bifurcations due to buoyancy in a cylindrical container heated from below with and without a free surface. Comptes Rendus - Mecanique, 2009, 337, 716-721.	2.1	0
110	Acoustic Streaming Jets in Liquids. , 2014, , .		0
111	Effet d'un champ magnétique uniforme sur les instabilités de Rayleigh-Bénard avec effet Soret. Comptes Rendus - Mecanique, 2016, 344, 1-11.	2.1	0
112	Laminar-turbulent transition regimes in the conical Taylor-Couette flow system. EPJ Web of Conferences, 2017, 143, 02145.	0.1	0