Hendrik C Kuhlmann

List of Publications by Year
in descending order

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84	1,829	257101	288905
papers	citations	24 h-index	40 g-index

89	89	89	682
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparing head muscles among Drusinae clades (Insecta: Trichoptera) reveals high congruence despite strong contrasts in head shape. Scientific Reports, 2022, 12, 1047.	1.6	4
2	Attractors for the motion of a finite-size particle in a two-sided lid-driven cavity. Journal of Fluid Mechanics, 2021, 906, .	1.4	16
3	Lagrangian transport in twoâ€dimensional timeâ€periodic cavity flow. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000194.	0.2	0
4	Flow instability in highâ€Prandtlâ€number thermocapillary liquid bridges exposed to a coaxial ambient gas stream. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000123.	0.2	1
5	Linear stability of the flow in a cavity driven at yaw. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000057.	0.2	0
6	Coherent Particle Structures in High-Prandtl-Number Liquid Bridges. Microgravity Science and Technology, 2021, 33, 1.	0.7	5
7	Finite-size coherent particle structures in high-Prandtl-number liquid bridges. Physical Review Fluids, 2021, 6, .	1.0	7
8	Stokesian motion of a spherical particle near a right corner made by tangentially moving walls. Journal of Fluid Mechanics, 2021, 927, .	1.4	2
9	Hydraulic niche utilization by larvae of the three Drusinae clades (Insecta: Trichoptera). Biologia (Poland), 2021, 76, 1465-1473.	0.8	6
10	Stability of obliquely driven cavity flow. Journal of Fluid Mechanics, 2021, 928, .	1.4	1
11	Lagrangian chaos in steady three-dimensional lid-driven cavity flow. Chaos, 2020, 30, 073121.	1.0	17
12	Stability of Thermocapillary Flow in High-Prandtl-Number Liquid Bridges Exposed to a Coaxial Gas Stream. Microgravity Science and Technology, 2020, 32, 953-959.	0.7	15
13	Hydraulic stress parameters of a cased caddis larva (Drusus biguttatus) using spatio-temporally filtered velocity measurements. Hydrobiologia, 2020, 847, 3437-3451.	1.0	3
14	A new Drusinae species from the western Alps with comments on the subfamily and an updated key to filtering carnivore larvae of Drusinae species (Insecta: Trichoptera: Limnephilidae). Zootaxa, 2020, 4790, 491-504.	0.2	3
15	Particle accumulation in highâ€Prandtlâ€number liquid bridges. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900058.	0.2	9
16	Threeâ€dimensional flow in a shearâ€driven cube. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900090.	0.2	1
17	A generic mechanism for finite-size coherent particle structures. International Journal of Multiphase Flow, 2019, 111, 42-52.	1.6	19
18	The Lid-Driven Cavity. Computational Methods in Applied Sciences (Springer), 2019, , 233-309.	0.1	33

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19	Finite-size Lagrangian coherent structures in a two-sided lid-driven cavity. Physical Review Fluids, 2019, 4, .	1.0	18
20	Project overview: Intricate bodies in the boundary layer - bridging fluid mechanics, morphology and ecology in larval Drusinae (Insecta: Trichoptera). Lauterbornia, 2019, 86, 169-174.	2.0	0
21	Tracking particles in flows near invariant manifolds via balance functions. Nonlinear Dynamics, 2018, 92, 983-1000.	2.7	6
22	Finite-size Lagrangian coherent structures in thermocapillary liquid bridges. Physical Review Fluids, 2018, 3, .	1.0	29
23	Particleâ€“boundary interaction in a shear-driven cavity flow. Theoretical and Computational Fluid Dynamics, 2017, 31, 427-445.	0.9	37
24	Limit cycles for the motion of finite-size particles in axisymmetric thermocapillary flows in liquid bridges. Physics of Fluids, 2017, 29, .	1.6	30
25	Cellular flow in a partially filled rotating drum: regular and chaotic advection. Journal of Fluid Mechanics, 2017, 825, 631-650.	1.4	8
26	Axisymmetric buoyantâ€“thermocapillary flow in sessile and hanging droplets. Journal of Fluid Mechanics, 2017, 826, 1066-1095.	1.4	5
27	Topology of three-dimensional steady cellular flow in a two-sided anti-parallel lid-driven cavity. Journal of Fluid Mechanics, 2017, 826, 302-334.	1.4	24
28	Smoothedâ€profile method for momentum and heat transfer in particulate flows. International Journal for Numerical Methods in Fluids, 2017, 83, 485-512.	0.9	12
29	Attractors for the motion of finiteâ€size particles in a twoâ€sided lidâ€driven cavity. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 669-670.	0.2	4
30	Origin of particle accumulation structures in liquid bridges: Particleâ€“boundary-interactions versus inertia. Physics of Fluids, 2016, 28, .	1.6	17
31	Numerical investigation of the interaction of a finite-size particle with a tangentially moving boundary. International Journal of Heat and Fluid Flow, 2016, 62, 75-82.	1.1	19
32	Axisymmetric flow over a backward-facing step in an annular pipe. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 473-474.	0.2	0
33	Interaction of a finite-size particle with the moving lid of a cavity. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 519-520.	0.2	7
34	Objective function choice for control of a thermocapillary flow using an adjoint-based control strategy. International Journal of Heat and Fluid Flow, 2015, 56, 28-42.	1.1	0
35	Structure and dynamics of particle-accumulation in thermocapillary liquid bridges. Fluid Dynamics Research, 2014, 46, 041421.	0.6	23
36	Large-Scale Liquid Motion in Free Thermocapillary Films. Microgravity Science and Technology, 2014, 26, 397-400.	0.7	9

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37	Stability of the steady three-dimensional lid-driven flow in a cube and the supercritical flow dynamics. Physics of Fluids, 2014, 26, .	1.6	27
38	Comment on â€œSynchronization of finite-size particles by a traveling wave in a cylindrical flowâ€•[Phys. Fluids 25, 092108 (2013)]. Physics of Fluids, 2014, 26, 099101.	1.6	5
39	Different particle-accumulation structures arising from particleâ€“boundary interactions in a liquid bridge. International Journal of Multiphase Flow, 2014, 59, 145-159.	1.6	12
40	Coherent particulate structures by boundary interaction of small particles in confined periodic flows. Physica D: Nonlinear Phenomena, 2013, 253, 40-65.	1.3	38
41	Topology of hydrothermal waves in liquid bridges and dissipative structures of transported particles. Physical Review E, 2013, 88, 053016.	0.8	31
42	Numerical error in modeling of particle-accumulation structures in periodic free-surface flows. Computers and Fluids, 2013, 88, 43-50.	1.3	10
43	Three-dimensional flow in a lid-driven cavity with width-to-height ratio of 1.6. Experiments in Fluids, 2013, 54, 1.	1.1	7
44	Airflow elicits a spider's jump towards airborne prey. II. Flow characteristics guiding behaviour. Journal of the Royal Society Interface, 2013, 10, 20120820.	1.5	15
45	Airflow elicits a spider's jump towards airborne prey. I. Airflow around a flying blowfly. Journal of the Royal Society Interface, 2012, 9, 2591-2602.	1.5	17
46	Comment on â€œOrdering of Small Particles in One-Dimensional Coherent Structures by Time-Periodic Flowsâ€• Physical Review Letters, 2012, 108, 249401; author reply 249402.	2.9	13
47	Particle-accumulation structures in periodic free-surface flows: Inertia versus surface collisions. Physical Review E, 2012, 85, 046310.	0.8	26
48	Flow instability in triangular lid-driven cavities with wall motion away from a rectangular corner. Fluid Dynamics Research, 2012, 44, 025501.	0.6	10
49	Global stability of multiple solutions in plane sudden-expansion flow. Journal of Fluid Mechanics, 2012, 702, 378-402.	1.4	14
50	Three-dimensional instability of the flow over a forward-facing step. Journal of Fluid Mechanics, 2012, 695, 390-404.	1.4	30
51	Global stability of the two-dimensional flow over a backward-facing step. Journal of Fluid Mechanics, 2012, 693, 1-27.	1.4	44
52	On the optimum mass transfer of flat absorbing falling films. International Journal of Heat and Mass Transfer, 2012, 55, 7686-7697.	2.5	13
53	Particle accumulation on periodic orbits by repeated free surface collisions. Physics of Fluids, 2011, 23, .	1.6	58
54	Three-dimensional flow instability in a lid-driven isosceles triangular cavity. Journal of Fluid Mechanics, 2011, 675, 369-396.	1.4	26

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55	Direct numerical simulation of particles in a fluid interacting with a wall. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 481-482.	0.2	0
56	Flow instabilities in thermocapillary-buoyant liquid pools. Journal of Fluid Mechanics, 2010, 644, 509-535.	1.4	20
57	Two- and three-dimensional flows in nearly rectangular cavities driven by collinear motion of two facing walls. Experiments in Fluids, 2008, 45, 781-796.	1.1	17
58	Linear stability of thermocapillary flow in partially confined half-zones. Physics of Fluids, 2007, 19, 044103.	1.6	16
59	Nonlinear three-dimensional flow in the lid-driven square cavity. Journal of Fluid Mechanics, 2006, 569, 465.	1.4	33
60	Effect of centrifugal forces on the instability of the thermocapillary flow in partially confined half-zones. Microgravity Science and Technology, 2006, 18, 132-136.	0.7	1
61	Accurate three-dimensional lid-driven cavity flow. Journal of Computational Physics, 2005, 206, 536-558.	1.9	183
62	Accurate three-dimensional simulation of lid-driven cavity flow. Proceedings in Applied Mathematics and Mechanics, 2003, 3, 366-367.	0.2	0
63	Instabilities and bifurcations in lid-driven cavity flows. Proceedings in Applied Mathematics and Mechanics, 2003, 3, 372-373.	0.2	1
64	The Influence of Static and Dynamic Free-Surface Deformations on the Three-Dimensional Thermocapillary Flow in Liquid Bridges. Lecture Notes in Physics, 2003, , 213-239.	0.3	3
65	Stability of thermocapillary flows in non-cylindrical liquid bridges. Journal of Fluid Mechanics, 2002, 458, 35-73.	1.4	77
66	Linear stability of rectangular cavity flows driven by anti-parallel motion of two facing walls. Journal of Fluid Mechanics, 2002, 458, 153-180.	1.4	40
67	The two-sided lid-driven cavity: experiments on stationary and time-dependent flows. Journal of Fluid Mechanics, 2002, 450, 67-95.	1.4	59
68	Pattern formation and transient thermocapillary flow in a rectangular side-heated open cavity. Microgravity Science and Technology, 2002, 13, 30-35.	0.7	3
69	Dynamic free-surface deformations in thermocapillary liquid bridges. Fluid Dynamics Research, 2002, 31, 103-127.	0.6	35
70	Influence of the volume of liquid on the onset of three-dimensional flow in thermocapillary liquid bridges. Advances in Space Research, 2002, 29, 639-644.	1.2	5
71	Multiplicity of Steady Two-Dimensional Flows in Two-Sided Lid-Driven Cavities. Theoretical and Computational Fluid Dynamics, 2001, 14, 223-241.	0.9	71
72	Three-dimensional numerical simulation of thermocapillary flows in cylindrical liquid bridges. Journal of Fluid Mechanics, 2000, 414, 285-314.	1.4	146

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73	Numerical simulation of three-dimensional oscillatory thermocapillary flow in a half zone of Pr=1 fluid. Advances in Space Research, 1999, 24, 1385-1390.	1.2	11
74	The local flow in a wedge between a rigid wall and a surface of constant shear stress. Journal of Engineering Mathematics, 1999, 36, 207-218.	0.6	7
75	Pattern formation of thermocapillary flows in liquid bridges. , 1999, 3792, 334.		2
76	Linear stability of thermocapillary convection in cylindrical liquid bridges under axial magnetic fields. Journal of Fluid Mechanics, 1999, 394, 281-302.	1.4	33
77	Linear stability of two-dimensional combined buoyant-thermocapillary flow in cylindrical liquid bridges. Physical Review E, 1997, 55, 7036-7042.	0.8	23
78	Investigation of three-dimensional thermocapillary convection in a cubic container by a multi-grid method. International Journal of Heat and Mass Transfer, 1996, 39, 603-613.	2.5	22
79	Thermocapillary flows in finite size systems. Mathematical and Computer Modelling, 1994, 20, 145-173.	2.0	12
80	Biorthogonal series method for Oseen type flows. International Journal of Engineering Science, 1993, 31, 1243-1258.	2.7	2
81	Hydrodynamic instabilities in cylindrical thermocapillary liquid bridges. Journal of Fluid Mechanics, 1993, 247, 247-274.	1.4	136
82	On the interpretation of phase measurements of oscillatory thermocapillary convection in liquid bridges. Physics of Fluids A, Fluid Dynamics, 1993, 5, 2117-2120.	1.6	30
83	Small amplitude thermocapillary flow and surface deformations in a liquid bridge. Physics of Fluids A, Fluid Dynamics, 1989, 1, 672-677.	1.6	18
84	Model for Taylor-Couette flow. Physical Review A, 1985, 32, 1703-1707.	1.0	31