Fabian Denner

List of Publications by Year
in descending order

46	904	430874	477307
papers	citations	18 h-index	29 g-index

48	48	48	635
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modeling of interfacial mass transfer based on a single-field formulation and an algebraic VOF method considering non-isothermal systems and large volume changes. Chemical Engineering Science, 2022, 247, 116855.	3.8	9
2	Modeling interfacial mass transfer of highly non-ideal mixtures using an algebraic VOF method. Chemical Engineering Science, 2022, 251, 117458.	3.8	3
3	Reducing volume and shape errors in front tracking by divergence-preserving velocity interpolation and parabolic fit vertex positioning. Journal of Computational Physics, 2022, 457, 111072.	3.8	1
4	Breaching the capillary time-step constraint using a coupled VOF method with implicit surface tension. Journal of Computational Physics, 2022, 459, 111128.	3.8	5
5	A Unified Algorithm for Interfacial Flows with Incompressible and Compressible Fluids. Forum for Interdisciplinary Mathematics, 2022, , 179-208.	1.6	1
6	The Gilmore-NASG model to predict single-bubble cavitation in compressible liquids. Ultrasonics Sonochemistry, 2021, 70, 105307.	8.2	16
7	Quantifying the errors of the particle-source-in-cell Euler-Lagrange method. International Journal of Multiphase Flow, 2021, 135, 103535.	3.4	7
8	Predicting laserâ€induced cavitation near a solid substrate. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000007.	0.2	4
9	The acoustic pressure generated by the cavitation bubble expansion and collapse near a rigid wall. Physics of Fluids, 2021, 33, .	4.0	71
10	Strong shear flows release gaseous nuclei from surface micro- and nanobubbles. Physical Review Fluids, 2021, 6, .	2.5	2
11	Multiscale modeling and validation of the flow around Taylor bubbles surrounded with small dispersed bubbles using a coupled VOF-DBM approach. International Journal of Multiphase Flow, 2021, 141, 103673.	3.4	17
12	Modelling Lipid-Coated Microbubbles in Focused Ultrasound Applications at Subresonance Frequencies. Ultrasound in Medicine and Biology, 2021, 47, 2958-2979.	1.5	11
13	Performance evaluation of standard second-order finite volume method for DNS solution of turbulent channel flow. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1.	1.6	1
14	Euler-Lagrange modelling of dilute particle-laden flows with arbitrary particle-size to mesh-spacing ratio. Journal of Computational Physics: X, 2020, 8, 100078.	0.7	7
15	Height-function curvature estimation with arbitrary order on non-uniform Cartesian grids. Journal of Computational Physics: X, 2020, 7, 100060.	0.7	1
16	Transient structures in rupturing thin films: Marangoni-induced symmetry-breaking pattern formation in viscous fluids. Science Advances, 2020, 6, eabb0597.	10.3	7
17	Conservative finite-volume framework and pressure-based algorithm for flows of incompressible, ideal-gas and real-gas fluids at all speeds. Journal of Computational Physics, 2020, 409, 109348.	3.8	39
18	Modeling Acoustic Cavitation Using a Pressure-Based Algorithm for Polytropic Fluids. Fluids, 2020, 5, 69.	1.7	14

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19	A multi-scale approach to simulate atomisation processes. International Journal of Multiphase Flow, 2019, 119, 194-216.	3.4	19
20	Numerical modelling of shock-bubble interactions using a pressure-based algorithm without Riemann solvers. Experimental and Computational Multiphase Flow, 2019, 1, 271-285.	3.9	8
21	Robust low-dimensional modelling of falling liquid films subject to variable wall heating. Journal of Fluid Mechanics, 2019, 877, 844-881.	3.4	8
22	On the numerical modelling of Corium spreading using Volume-of-Fluid methods. Nuclear Engineering and Design, 2019, 345, 216-232.	1.7	5
23	Wall collision of deformable bubbles in the creeping flow regime. European Journal of Mechanics, B/Fluids, 2018, 70, 36-45.	2.5	6
24	Pressure-based algorithm for compressible interfacial flows with acoustically-conservative interface discretisation. Journal of Computational Physics, 2018, 367, 192-234.	3.8	38
25	Solitary waves on falling liquid films in the inertia-dominated regime. Journal of Fluid Mechanics, 2018, 837, 491-519.	3.4	41
26	Unified formulation of the momentum-weighted interpolation for collocated variable arrangements. Journal of Computational Physics, 2018, 375, 177-208.	3.8	35
27	Fully-coupled pressure-based algorithm for compressible flows: Linearisation and iterative solution strategies. Computers and Fluids, 2018, 175, 53-65.	2.5	21
28	Capillary waves with surface viscosity. Journal of Fluid Mechanics, 2018, 847, 644-663.	3.4	12
29	Experimental investigations of liquid falling films flowing under an inclined planar substrate. Physical Review Fluids, 2018, 3, .	2.5	24
30	Dispersion and viscous attenuation of capillary waves with finite amplitude. European Physical Journal: Special Topics, 2017, 226, 1229-1238.	2.6	14
31	Fully-coupled pressure-based finite-volume framework for the simulation of fluid flows at all speeds in complex geometries. Journal of Computational Physics, 2017, 346, 91-130.	3.8	42
32	Artificial viscosity model to mitigate numerical artefacts at fluid interfaces with surface tension. Computers and Fluids, 2017, 143, 59-72.	2.5	26
33	Estimation of curvature from volume fractions using parabolic reconstruction on two-dimensional unstructured meshes. Journal of Computational Physics, 2017, 351, 271-294.	3.8	23
34	Marangoni effect on small-amplitude capillary waves in viscous fluids. Physical Review E, 2017, 96, 053110.	2.1	3
35	Detailed hydrodynamic characterization of harmonically excited falling-film flows: A combined experimental and computational study. Physical Review Fluids, 2017, 2, .	2.5	27
36	Before the bubble ruptures. Physical Review Fluids, 2017, 2, .	2.5	1

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37	Statistical characteristics of falling-film flows: A synergistic approach at the crossroads of direct numerical simulations and experiments. Physical Review Fluids, 2017, 2, .	2.5	8
38	Frequency dispersion of small-amplitude capillary waves in viscous fluids. Physical Review E, 2016, 94, 023110.	2.1	23
39	Self-similarity of solitary waves on inertia-dominated falling liquid films. Physical Review E, 2016, 93, 033121.	2.1	14
40	Numerical time-step restrictions as a result of capillary waves. Journal of Computational Physics, 2015, 285, 24-40.	3.8	77
41	TVD differencing on three-dimensional unstructured meshes with monotonicity-preserving correction of mesh skewness. Journal of Computational Physics, 2015, 298, 466-479.	3.8	29
42	Fully-Coupled Balanced-Force VOF Framework for Arbitrary Meshes with Least-Squares Curvature Evaluation from Volume Fractions. Numerical Heat Transfer, Part B: Fundamentals, 2014, 65, 218-255.	0.9	84
43	Comparative study of mass-conserving interface capturing frameworks for two-phase flows with surface tension. International Journal of Multiphase Flow, 2014, 61, 37-47.	3.4	29
44	Compressive VOF method with skewness correction to capture sharp interfaces on arbitrary meshes. Journal of Computational Physics, 2014, 279, 127-144.	3.8	55
45	On the convolution of fluid properties and surface force for interface capturing methods. International Journal of Multiphase Flow, 2013, 54, 61-64.	3.4	15
46	Reversal and Inversion of Capillary Jet Breakup at Large Excitation Amplitudes. Flow, Turbulence and Combustion, 0, , 1.	2.6	0