Daniel Fuster

List of Publications by Year
in descending order

45 papers	1,611 citations	331670 21 h-index	289244 40 g-index
45 all docs	45 docs citations	45 times ranked	1235 citing authors

#	Article	IF	Citations
1	Simulation of primary atomization with an octree adaptive mesh refinement and VOF method. International Journal of Multiphase Flow, 2009, 35, 550-565.	3.4	212
2	Numerical simulation of droplets, bubbles and waves: state of the art. Fluid Dynamics Research, 2009, 41, 065001.	1.3	155
3	Multiscale simulations of primary atomization. Computers and Fluids, 2010, 39, 1864-1874.	2.5	140
4	Modelling bubble clusters in compressible liquids. Journal of Fluid Mechanics, 2011, 688, 352-389.	3.4	88
5	Instability regimes in the primary breakup region of planar coflowing sheets. Journal of Fluid Mechanics, 2013, 736, 150-176.	3.4	86
6	An all-Mach method for the simulation of bubble dynamics problems in the presence of surface tension. Journal of Computational Physics, 2018, 374, 752-768.	3.8	78
7	Parallel simulation of multiphase flows using octree adaptivity and the volume-of-fluid method. Comptes Rendus - Mecanique, 2011, 339, 194-207.	2.1	66
8	Spray formation in a quasiplanar gas-liquid mixing layer at moderate density ratios: A numerical closeup. Physical Review Fluids, 2017, 2, .	2.5	65
9	Liquid compressibility effects during the collapse of a single cavitating bubble. Journal of the Acoustical Society of America, 2011, 129, 122-131.	1.1	59
10	A two-phase mixing layer between parallel gas and liquid streams: multiphase turbulence statistics and influence of interfacial instability. Journal of Fluid Mechanics, 2019, 859, 268-307.	3.4	56
11	Mass transfer effects on linear wave propagation in diluted bubbly liquids. Journal of Fluid Mechanics, 2015, 779, 598-621.	3.4	55
12	Direct Numerical Simulations of Capillary Wave Turbulence. Physical Review Letters, 2014, 112, 234501.	7.8	46
13	Dynamics of a single cavitating and reacting bubble. Physical Review E, 2007, 75, 066310.	2.1	41
14	Effect of direct bubble-bubble interactions on linear-wave propagation in bubbly liquids. Physical Review E, 2014, 90, 063010.	2.1	38
15	Influence of the accommodation coefficient on nonlinear bubble oscillations. Journal of the Acoustical Society of America, 2010, 128, 5-10.	1.1	34
16	Variational multiscale a-posteriori error estimation for multi-dimensional transport problems. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2701-2718.	6.6	33
17	Instability growth rate of two-phase mixing layers from a linear eigenvalue problem and an initial-value problem. Physics of Fluids, 2010, 22, 092104.	4.0	32
18	Physics of Beer Tapping. Physical Review Letters, 2014, 113, 214501.	7.8	30

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19	A Review of Models for Bubble Clusters in Cavitating Flows. Flow, Turbulence and Combustion, 2019, 102, 497-536.	2.6	30
20	PArallel, Robust, Interface Simulator (PARIS). Computer Physics Communications, 2021, 263, 107849.	7.5	29
21	A mass-momentum consistent, Volume-of-Fluid method for incompressible flow on staggered grids. Computers and Fluids, 2021, 215, 104785.	2.5	25
22	Optimal Control of SonoVue Microbubbles to Estimate Hydrostatic Pressure. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 557-567.	3.0	22
23	Oscillation regimes of gas/vapor bubbles. International Journal of Heat and Mass Transfer, 2017, 112, 72-80.	4.8	21
24	Variational multiscale a posteriori error estimation for systems: The Euler and Navierâ€“Stokes equations. Computer Methods in Applied Mechanics and Engineering, 2015, 283, 1493-1524.	6.6	18
25	Multi-scale flow simulation of automotive catalytic converters. Chemical Engineering Science, 2014, 116, 161-171.	3.8	16
26	Nonlinear acoustic propagation in bubbly liquids: Multiple scattering, softening and hardening phenomena. Journal of the Acoustical Society of America, 2016, 139, 1703-1712.	1.1	16
27	An energy preserving formulation for the simulation of multiphase turbulent flows. Journal of Computational Physics, 2013, 235, 114-128.	3.8	15
28	Application of Variational a-Posteriori Multiscale Error Estimation to Higher-Order Elements. Computational Mechanics, 2006, 38, 382-389.	4.0	13
29	Multi-scale simulation of rainwater morphology evolution on a cylinder subjected to wind. Computers and Fluids, 2015, 123, 112-121.	2.5	12
30	Investigation of the collapse of bubbles after the impact of a piston on a liquid free surface. AICHE Journal, 2017, 63, 2483-2495.	3.6	10
31	Thermodynamics of Void Fraction in Saturated Flow Boiling. Journal of Heat Transfer, 2006, 128, 611-615.	2.1	9
32	Stability of bubbly liquids and its connection to the process of cavitation inception. Physics of Fluids, 2014, 26, 042002.	4.0	9
33	Parametric Analysis for a Single Collapsing Bubble. Flow, Turbulence and Combustion, 2009, 82, 25-46.	2.6	8
34	Scattering of acoustic waves by a nonlinear resonant bubbly screen. Journal of Fluid Mechanics, 2021, 906, .	3.4	8
35	Vortex-interface interactions in two-dimensional flows. International Journal of Multiphase Flow, 2021, 143, 103757.	3.4	7
36	Variational Multiscale A Posteriori Error Estimation for Quantities of Interest. Journal of Applied Mechanics, Transactions ASME, 2009, 76, .	2.2	6

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37	Time-delayed interactions on acoustically driven bubbly screens. Journal of the Acoustical Society of America, 2021, 150, 4219-4231.	1.1	6
38	The Effects of Hydrostatic Pressure on the Subharmonic Response of SonoVue and Sonazoid. , 2019, , .		4
39	Optimal subharmonic emission of stable bubble oscillations in a tube. Physical Review E, 2020, 102, 013105.	2.1	4
40	A Posteriori Error Estimation for Computational Fluid Dynamics: The Variational Multiscale Approach. Lecture Notes in Applied and Computational Mechanics, 2010, , 19-38.	2.2	4
41	Shock Propagation Effects in Multilayer Assembly Including a Liquid Phase. Key Engineering Materials, 2017, 755, 181-189.	0.4	2
42	Effects of surface tension on the Richtmyer-Meshkov instability in fully compressible and inviscid fluids. Physical Review Fluids, 2021, 6, .	2.5	2
43	Investigation of a New Model for Bubbly Cavitating Flow. , 2012, , .		1
44	Coupled Heat Transfer Phenomena in Cavitating Bubble Dynamics. , 2005, , 1017.		0
45	The non-linear response of bubble clouds to pressure excitations. Journal of Physics: Conference Series, 2015, 656, 012123.	0.4	0