Franz Durst

List of Publications by Year
in descending order

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38	1,630	394421 19	377865 34
papers	citations	h-index	g-index

41	41	41	1410
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Low-Reynolds-number flow around an oscillating circular cylinder at low Keuleganâ€“Carpenter numbers. Journal of Fluid Mechanics, 1998, 360, 249-271.	3.4	309
2	The Development Lengths of Laminar Pipe and Channel Flows. Journal of Fluids Engineering, Transactions of the ASME, 2005, 127, 1154-1160.	1.5	226
3	Effect of high rotation rates on the laminar flow around a circular cylinder. Physics of Fluids, 2002, 14, 3160-3178.	4.0	172
4	Pressure-driven diffusive gas flows in micro-channels: from the Knudsen to the continuum regimes. Microfluidics and Nanofluidics, 2009, 6, 679-692.	2.2	104
5	The dynamics of the transitional flow over a backward-facing step. Journal of Fluid Mechanics, 2009, 623, 85-119.	3.4	80
6	Planar Simulation of Bubble Growth in Film Boiling in Near-Critical Water Using a Variant of the VOF Method. Journal of Heat Transfer, 2004, 126, 329-338.	2.1	76
7	Experimental Investigations of Regimes of Bubble Formation on Submerged Orifices Under Constant Flow Condition. Canadian Journal of Chemical Engineering, 2007, 85, 257-267.	1.7	71
8	Comparison of cellular automata and finite volume techniques for simulation of incompressible flows in complex geometries. International Journal for Numerical Methods in Fluids, 1999, 29, 251-264.	1.6	53
9	Mass flow rate control system for time-dependent laminar and turbulent flow investigations. Measurement Science and Technology, 2003, 14, 893-902.	2.6	53
10	Predicting microscale gas flows and rarefaction effects through extended Navierâ€“Stokesâ€“Fourier equations from phoretic transport considerations. Microfluidics and Nanofluidics, 2010, 9, 831-846.	2.2	48
11	A New Lance Design for BOF Steelmaking. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2007, 38, 45-53.	2.1	40
12	Pulsating laminar pipe flows with sinusoidal mass flux variations. Fluid Dynamics Research, 2005, 37, 317-333.	1.3	38
13	Mass Flow Rate Controlled Fully Developed Laminar Pulsating Pipe Flows. Journal of Fluids Engineering, Transactions of the ASME, 2005, 127, 405-418.	1.5	33
14	Experimental and Computational Investigation of the Two-Dimensional Channel Flow Over Two Fences in Tandem. Journal of Fluids Engineering, Transactions of the ASME, 1988, 110, 48-54.	1.5	32
15	Highly spatially resolved velocity measurements of a turbulent channel flow by a fiber-optic heterodyne laser-Doppler velocity-profile sensor. Experiments in Fluids, 2006, 40, 473-481.	2.4	28
16	Development length of sinusoidally pulsating laminar pipe flows in moderate and high Reynolds number regimes. International Journal of Heat and Fluid Flow, 2012, 37, 167-176.	2.4	25
17	Experimental investigation of near-wall effects on hot-wire measurements. Experiments in Fluids, 2002, 33, 210-218.	2.4	24
18	Penetration length and diameter development of vortex rings generated by impacting water drops. Experiments in Fluids, 1996, 21, 110-117.	2.4	19

#	Article	IF	Citations
19	Local block refinement with a multigrid flow solver. International Journal for Numerical Methods in Fluids, 2002, 38, 21-41.	1.6	19
20	Semianalytical solutions of laminar fully developed pulsating flows through ducts of arbitrary cross sections. Physics of Fluids, 2004, 16, 4371-4385.	4.0	16
21	EFFECT OF ANGULAR QUADRATURE SCHEMES ON THE COMPUTATIONAL EFFICIENCY OF THE DISCRETE TRANSFER METHOD FOR SOLVING RADIATIVE TRANSPORT PROBLEMS WITH PARTICIPATING MEDIUM. Numerical Heat Transfer, Part B: Fundamentals, 2004, 46, 463-478.	0.9	15
22	Method for defined mass flow variations in time and its application to test a mass flow rate meter for pulsating flows. Measurement Science and Technology, 2007, 18, 790-802.	2.6	14
23	Thermofluiddynamics: Do We Solve the Right Kind of Equations?. , 2006, , .		12
24	Computations of coating windows for reverse roll coating of liquid films. Journal of Coatings Technology Research, 2020, 17, 897-910.	2.5	11
25	Instantaneous mass flowrate measurements through fuel injection nozzles. International Journal of Engine Research, 2006, 7, 371-380.	2.3	10
26	On the high contraction ratio anomaly of axisymmetric contraction of grid-generated turbulence. Physics of Fluids, 2008, 20, .	4.0	10
27	A combined analyticalâ€“numerical method for treating corner singularities in viscous flow predictions. International Journal for Numerical Methods in Fluids, 2004, 45, 659-688.	1.6	9
28	Numerical predictions of backward-facing step flows in microchannels using extended Navierâ€“Stokes equations. Microfluidics and Nanofluidics, 2014, 16, 757-772.	2.2	7
29	Mass flow-rate control unit to calibrate hot-wire sensors. Experiments in Fluids, 2008, 44, 189-197.	2.4	5
30	An Adaptive Grid Eulerian Method for the Computation of Free Surface Flows. International Journal of Computational Fluid Dynamics, 1998, 10, 213-224.	1.2	3
31	Fluidâ€“structure interactions of a torsion spring pendulum at large initial amplitudes. Journal of Fluid Mechanics, 2002, 471, 219-238.	3.4	3
32	Measurement and modeling of homogeneous axisymmetric turbulence. Journal of Turbulence, 2009, 10, N6.	1.4	3
33	Comparison of cellular automata and finite volume techniques for simulation of incompressible flows in complex geometries. , 1999, 29, 251.		3
34	Pressure strain rate modeling of homogeneous axisymmetric turbulence. Journal of Turbulence, 2009, 10, N29.	1.4	2
35	(2-27) A New Concept of I. C. Engine with Homogeneous Combustion in a Porous Medium((NCS-3)Novel) Tj ETQq1 1 0.784314 rgBT Proceedings of the International Symposium on Diagnostics and Modeling of Combustion in Internal Combustion Engines, 2001, 01.204, 63.	0.1	1
36	Treatments of Micro-channel Flows Revisited: Continuum Versus Rarified Gas Considerations. Journal of the Institution of Engineers (India): Series C, 2020, 101, 429-439.	1.2	1

#	Article	IF	Citations
37	On the effect of Reynolds number on von KÃ¡rmÃ¡nâ€™s constant. Acta Mechanica Sinica/Lixue Xuebao, 2002, 18, 350-355.	3.4	0
	(2-28) Zero Emission Engine : A Novel Steam Engine for Automotive Applications((NCS-3)Novel) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7		
38	Proceedings of the International Symposium on Diagnostics and Modeling of Combustion in Internal Combustion Engines, 2001, 01.204, 64.	0.1	0