

# Ashoke De

## List of Publications by Year in descending order

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81  
papers

1,061  
citations

430874

18  
h-index

477307

29  
g-index

89  
all docs

89  
docs citations

89  
times ranked

674  
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical Investigation of Flow-Acoustics Coupling in a Half-Dump Combustor Using Hybrid CFD-CAA Methodology. <i>Green Energy and Technology</i> , 2022, , 337-359.	0.6	0
2	A multiscale approach for stable relaxation parameter values in lattice Boltzmann simulations of heat and mass transport in porous media. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2022, 82, 41-59.	0.9	1
3	Numerical analysis of dilute methanol spray flames in vitiated coflow using extended flamelet generated manifold model. <i>Physics of Fluids</i> , 2022, 34, .	4.0	4
4	A robust sharp interface based immersed boundary framework for moving body problems with applications to laminar incompressible flows. <i>Computers and Mathematics With Applications</i> , 2021, 83, 24-56.	2.7	11
5	Film Cooling Aspects of a Dual Bell Nozzle. <i>Lecture Notes in Mechanical Engineering</i> , 2021, , 99-107.	0.4	0
6	Preface to special issue of selected papers from the 13th International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer "Numerical Fluids 2018. <i>Computers and Mathematics With Applications</i> , 2021, 83, 1-3.	2.7	1
7	Role of corner flow separation in unsteady dynamics of hypersonic flow over a double wedge geometry. <i>Physics of Fluids</i> , 2021, 33, .	4.0	26
8	Effect of vortex and entropy sources in sound generation for compressible cavity flow. <i>Physics of Fluids</i> , 2021, 33, .	4.0	6
9	Generalization of the Stability Condition for the Semi-Implicit Formulation of the Radial Impurity Transport Equation in Tokamak Plasma in Terms of the Magnetic Flux Surface Coordinate. <i>Journal of Fusion Energy</i> , 2021, 40, 1.	1.2	0
10	Suppression of vortex shedding using a slit through the circular cylinder at low Reynolds number. <i>European Journal of Mechanics, B/Fluids</i> , 2021, 89, 349-366.	2.5	20
11	Characteristics of shock tube generated compressible vortex rings at very high shock Mach numbers. <i>Physics of Fluids</i> , 2021, 33, .	4.0	11
12	On the unsteady dynamics of partially shrouded compressible jets. <i>Experiments in Fluids</i> , 2021, 62, 1.	2.4	5
13	Transported PDF Modeling of Jet-in-Hot-Coflow Flames. <i>Green Energy and Technology</i> , 2021, , 439-462.	0.6	0
14	Flow characteristics of elastically mounted slit cylinder at sub-critical Reynolds number. <i>Physics of Fluids</i> , 2021, 33, .	4.0	9
15	Mathematical modeling of flash boiling phenomena in superheated sprays at low degree of superheat using dirichlet hyperboloids. <i>International Journal of Multiphase Flow</i> , 2020, 130, 103366.	3.4	3
16	Investigation of shock wave interactions involving stationary and moving wedges. <i>Physics of Fluids</i> , 2020, 32, .	4.0	13
17	On the fluidic behavior of an over-expanded planar plug nozzle under lateral confinement. <i>Physics of Fluids</i> , 2020, 32, 086106.	4.0	9
18	Investigation of asymmetrically pitching airfoil at high reduced frequency. <i>Physics of Fluids</i> , 2020, 32, .	4.0	18

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19	Vortex-induced vibrations of a confined circular cylinder for efficient flow power extraction. Physics of Fluids, 2020, 32, .	4.0	35
20	Numerical Investigation of Coaxial GCH <sub>4</sub> /LOx Combustion at Supercritical Pressures. Combustion Science and Technology, 2020, , 1-25.	2.3	5
21	Passive control of the onset of vortex shedding in flow past a circular cylinder using slit. Physics of Fluids, 2020, 32, .	4.0	29
22	Investigation of flow characteristics inside a dual bell nozzle with and without film cooling. Aerospace Science and Technology, 2020, 99, 105741.	4.8	15
23	Handling Slender/Thin Geometries with Sharp Edges in Sharp Interface Immersed Boundary Approach. Computational Methods in Engineering & the Sciences, 2020, , 139-165.	0.3	1
24	A novel sharp interface immersed boundary framework for viscous flow simulations at arbitrary Mach number involving complex and moving boundaries. Computers and Fluids, 2020, 206, 104579.	2.5	8
25	FLOW PAST STATIONARY AND OSCILLATING AIRFOIL AT A LOW REYNOLDS NUMBER USING SHARP INTERFACE IMMERSED-BOUNDARY APPROACH. Journal of Flow Visualization and Image Processing, 2020, 27, 47-69.	0.5	3
26	Modal decomposition of turbulent supersonic cavity. Shock Waves, 2019, 29, 135-151.	1.9	13
27	A dynamic two-coefficient wall adapting local eddy viscosity model. AIP Conference Proceedings, 2019, , .	0.4	0
28	Water faucet problem by mixture two phase flow equations. AIP Conference Proceedings, 2019, , .	0.4	0
29	Lattice Boltzmann simulations of anode supported solid oxide fuel cell. AIP Conference Proceedings, 2019, , .	0.4	3
30	Numerical study of trailing and leading vortex dynamics in a forced jet with coflow. Computers and Fluids, 2019, 181, 314-344.	2.5	9
31	Prediction of separation induced transition on thick airfoil using non-linear URANS based turbulence model. Journal of Mechanical Science and Technology, 2019, 33, 2169-2180.	1.5	8
32	Effect of grid sensitivity on the performance of wall adapting SGS models for LES of swirling and separating reattaching flows. Computers and Mathematics With Applications, 2019, 78, 2035-2051.	2.7	21
33	Flash Boiling in Sprays: Recent Developments and Modeling. Journal of the Indian Institute of Science, 2019, 99, 93-104.	1.9	9
34	Effect of Passive Flow Control of Bifurcation Phenomenon in Sudden Expansion Channel. Proceedings of the National Academy of Sciences India Section A - Physical Sciences, 2019, 89, 663-672.	1.2	0
35	Investigation of mixing characteristics in strut injectors using modal decomposition. Physics of Fluids, 2018, 30, .	4.0	39
36	Soot Predictions in Higher Order Hydrocarbon Flames: Assessment of Semi-Empirical Models and Method of Moments. Energy, Environment, and Sustainability, 2018, , 335-361.	1.0	1

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37	Pore-Scale Simulation of Shear Thinning Fluid Flow Using Lattice Boltzmann Method. Transport in Porous Media, 2018, 121, 753-782.	2.6	7
38	Transported Probability Density Function Method for MILD Combustion. Energy, Environment, and Sustainability, 2018, , 397-427.	1.0	0
39	Investigation of NOx in piloted stabilized methane-air diffusion flames using finite-rate and infinitely-fast chemistry based combustion models. Thermal Science and Engineering Progress, 2018, 5, 144-157.	2.7	18
40	Role of jet spacing and strut geometry on the formation of large scale structures and mixing characteristics. Physics of Fluids, 2018, 30, .	4.0	29
41	Assessment of pressure reconstruction schemes in sharp interface immersed boundary method. AIP Conference Proceedings, 2018, , .	0.4	2
42	Investigation of the Role of Chemical Kinetics in Controlling Stabilization Mechanism of the Turbulent Lifted Jet Flame Using Multi-flamelet Generated Manifold Approach. Green Energy and Technology, 2018, , 293-314.	0.6	1
43	Study of wall adaptive SGS models for LES of subsonic and supersonic flows. AIP Conference Proceedings, 2018, , .	0.4	0
44	Soot Formation in Turbulent Diffusion Flames: Effect of Differential Diffusion. , 2017, , 193-216.		1
45	Characterization of Turbulent Supersonic Flow over a Backward-Facing Step. AIAA Journal, 2017, 55, 1511-1529.	2.6	19
46	Investigation of strut-ramp injector in a Scramjet combustor: Effect of strut geometry, fuel and jet diameter on mixing characteristics. Journal of Mechanical Science and Technology, 2017, 31, 1169-1179.	1.5	39
47	Simulation of coupled heat and mass transport with reaction in PEM fuel cell cathode using lattice Boltzmann method. Thermal Science and Engineering Progress, 2017, 4, 85-96.	2.7	16
48	Investigation of flow structures in supersonic flow with mass injection. AIP Conference Proceedings, 2017, , .	0.4	0
49	A Hybrid Flamelet Generated Manifold Model for Modeling Partially Premixed Turbulent Combustion Flames. , 2017, , .		3
50	Passive control of bifurcation phenomenon in sudden expansion flow. AIP Conference Proceedings, 2017, , .	0.4	0
51	Assessment of soot formation models in lifted ethylene/air turbulent diffusion flame. Thermal Science and Engineering Progress, 2017, 3, 49-61.	2.7	11
52	Investigation of the sensitivity of turbulent closures and coupling of hybrid RANS-LES models for predicting flow fields with separation and reattachment. International Journal for Numerical Methods in Fluids, 2017, 83, 917-939.	1.6	10
53	Numerical simulations of 3D compressible vortex ring. AIP Conference Proceedings, 2017, , .	0.4	1
54	Investigation of flow structures in a turbulent separating flow using hybrid RANS-LES model. International Journal of Numerical Methods for Heat and Fluid Flow, 2017, 27, 1430-1450.	2.8	17

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55	Lattice Boltzmann Simulation of Lithium Peroxide Formation in Lithium-Oxygen Battery. Journal of Electrochemical Energy Conversion and Storage, 2016, 13, .	2.1	14
56	Numerical study of flow physics in supersonic base-flow with mass bleed. Aerospace Science and Technology, 2016, 58, 1-17.	4.8	21
57	Stabilization of lifted hydrogen jet diffusion flame in a vitiated co-flow: Effects of jet and coflow velocities, coflow temperature and mixing. International Journal of Hydrogen Energy, 2016, 41, 15026-15042.	7.1	17
58	Numerical study of bifurcating flow through sudden expansions: effect of divergence and geometric asymmetry. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2016, 8, 259-273.	1.1	6
59	Numerical modeling of soot formation in a turbulent $C_2H_4$ /air diffusion flame. International Journal of Spray and Combustion Dynamics, 2016, 8, 67-85.	1.0	10
60	Assessment of Turbulence-Chemistry Interaction Models in MILD Combustion Regime. Flow, Turbulence and Combustion, 2015, 94, 439-478.	2.6	45
61	Effect of precursors and radiation on soot formation in turbulent diffusion flame. Fuel, 2015, 148, 58-72.	6.4	20
62	Assessment of RANS based models in a supersonic flow. AIP Conference Proceedings, 2015, , .	0.4	3
63	Identification of coherent structures in a supersonic flow past backward facing step. AIP Conference Proceedings, 2015, , .	0.4	3
64	Numerical investigation of flow structures around a cylindrical afterbody under supersonic condition. Aerospace Science and Technology, 2015, 47, 195-209.	4.8	22
65	Investigation of flow field of clap and fling motion using immersed boundary coupled lattice Boltzmann method. Journal of Fluids and Structures, 2015, 57, 247-263.	3.4	16
66	Numerical Investigation of MILD Combustion Using Multi-Environment Eulerian Probability Density Function Modeling. International Journal of Spray and Combustion Dynamics, 2014, 6, 357-386.	1.0	8
67	Large Eddy Simulation of Mild Combustion Using PDF-Based Turbulence-Chemistry Interaction Models. Combustion Science and Technology, 2014, 186, 1138-1165.	2.3	26
68	Modeling of turbulent lifted flames in vitiated co-flow using multi environment Eulerian PDF transport approach. International Journal of Heat and Mass Transfer, 2014, 77, 230-246.	4.8	8
69	Simulation of chemical reactions induced by droplet in a phase separating media using Lattice Boltzmann-kinetic Monte-Carlo framework. Computers and Fluids, 2014, 89, 133-142.	2.5	8
70	Coupling of reaction and hydrodynamics around a reacting block modeled by Lattice Boltzmann Method (LBM). Computers and Fluids, 2013, 71, 91-97.	2.5	17
71	Numerical Investigation of Delft-Jet-in-Hot-Coflow (DJHC) Burner Using Probability Density Function (PDF) Transport Modeling. , 2013, , .		4
72	Investigation of flow structures in hydrogen-enriched premixed combustion. , 2013, , .		0

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73	Parametric study of upstream flame propagation in hydrogen-enriched premixed combustion: Effects of swirl, geometry and premixedness. International Journal of Hydrogen Energy, 2012, 37, 14649-14668.	7.1	40
74	Dynamics of upstream flame propagation in a hydrogen-enriched premixed flame. International Journal of Hydrogen Energy, 2012, 37, 17294-17309.	7.1	30
75	Numerical Simulation of Delft-Jet-in-Hot-Coflow (DJHC) Flames Using the Eddy Dissipation Concept Model for Turbulence-Chemistry Interaction. Flow, Turbulence and Combustion, 2011, 87, 537-567.	2.6	178
76	An Experimental and Computational Study of a Swirl-Stabilized Premixed Flame. Journal of Engineering for Gas Turbines and Power, 2010, 132, .	1.1	12
77	An Experimental and Computational Study of a Swirl-Stabilized Premixed Flame. , 2009, , .		3
78	Large Eddy Simulation of Premixed Combustion With a Thickened-Flame Approach. Journal of Engineering for Gas Turbines and Power, 2009, 131, .	1.1	13
79	Large Eddy Simulation of a Premixed Bunsen Flame Using a Modified Thickened-Flame Model at Two Reynolds Number. Combustion Science and Technology, 2009, 181, 1231-1272.	2.3	24
80	Large Eddy Simulation of Premixed Combustion With a Thickened-Flame Approach. , 2008, , .		2
81	Finite element computation of turbulent flow past a multi-element airfoil. International Journal of Computational Fluid Dynamics, 2006, 20, 563-577.	1.2	1