

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 Simulation of Delft-Jet-in-Hot-Coflow (DJHC) Flames Using the Eddy Dissipation Concept Model for Turbulence-Chemistry Interaction. <i>Flow, Turbulence and Combustion</i> , 2011, 87, 537-567.	2.6	178
2	Assessment of Turbulence-Chemistry Interaction Models in MILD Combustion Regime. <i>Flow, Turbulence and Combustion</i> , 2015, 94, 439-478.	2.6	45
3	Parametric study of upstream flame propagation in hydrogen-enriched premixed combustion: Effects of swirl, geometry and premixedness. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 14649-14668.	7.1	40
4	Investigation of strut-ramp injector in a Scramjet combustor: Effect of strut geometry, fuel and jet diameter on mixing characteristics. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 1169-1179.	1.5	39
5	Investigation of mixing characteristics in strut injectors using modal decomposition. <i>Physics of Fluids</i> , 2018, 30, .	4.0	39
6	Vortex-induced vibrations of a confined circular cylinder for efficient flow power extraction. <i>Physics of Fluids</i> , 2020, 32, .	4.0	35
7	Dynamics of upstream flame propagation in a hydrogen-enriched premixed flame. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 17294-17309.	7.1	30
8	Role of jet spacing and strut geometry on the formation of large scale structures and mixing characteristics. <i>Physics of Fluids</i> , 2018, 30, .	4.0	29
9	Passive control of the onset of vortex shedding in flow past a circular cylinder using slit. <i>Physics of Fluids</i> , 2020, 32, .	4.0	29
10	Large Eddy Simulation of Mild Combustion Using PDF-Based Turbulence-Chemistry Interaction Models. <i>Combustion Science and Technology</i> , 2014, 186, 1138-1165.	2.3	26
11	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
12	Large Eddy Simulation of a Premixed Bunsen Flame Using a Modified Thickened-Flame Model at Two Reynolds Number. <i>Combustion Science and Technology</i> , 2009, 181, 1231-1272.	2.3	24
13	Numerical investigation of flow structures around a cylindrical afterbody under supersonic condition. <i>Aerospace Science and Technology</i> , 2015, 47, 195-209.	4.8	22
14	Numerical study of flow physics in supersonic base-flow with mass bleed. <i>Aerospace Science and Technology</i> , 2016, 58, 1-17.	4.8	21
15	Effect of grid sensitivity on the performance of wall adapting SGS models for LES of swirling and separating-reattaching flows. <i>Computers and Mathematics With Applications</i> , 2019, 78, 2035-2051.	2.7	21
16	Effect of precursors and radiation on soot formation in turbulent diffusion flame. <i>Fuel</i> , 2015, 148, 58-72.	6.4	20
17	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
18	Characterization of Turbulent Supersonic Flow over a Backward-Facing Step. <i>AIAA Journal</i> , 2017, 55, 1511-1529.	2.6	19

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19	Investigation of NO _x in piloted stabilized methane-air diffusion flames using finite-rate and infinitely-fast chemistry based combustion models. <i>Thermal Science and Engineering Progress</i> , 2018, 5, 144-157.	2.7	18
20	Investigation of asymmetrically pitching airfoil at high reduced frequency. <i>Physics of Fluids</i> , 2020, 32, .	4.0	18
21	Coupling of reaction and hydrodynamics around a reacting block modeled by Lattice Boltzmann Method (LBM). <i>Computers and Fluids</i> , 2013, 71, 91-97.	2.5	17
22	Stabilization of lifted hydrogen jet diffusion flame in a vitiated co-flow: Effects of jet and coflow velocities, coflow temperature and mixing. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 15026-15042.	7.1	17
23	Investigation of flow structures in a turbulent separating flow using hybrid RANS-LES model. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2017, 27, 1430-1450.	2.8	17
24	Investigation of flow field of clap and fling motion using immersed boundary coupled lattice Boltzmann method. <i>Journal of Fluids and Structures</i> , 2015, 57, 247-263.	3.4	16
25	Simulation of coupled heat and mass transport with reaction in PEM fuel cell cathode using lattice Boltzmann method. <i>Thermal Science and Engineering Progress</i> , 2017, 4, 85-96.	2.7	16
26	Investigation of flow characteristics inside a dual bell nozzle with and without film cooling. <i>Aerospace Science and Technology</i> , 2020, 99, 105741.	4.8	15
27	Lattice Boltzmann Simulation of Lithium Peroxide Formation in Lithium-Oxygen Battery. <i>Journal of Electrochemical Energy Conversion and Storage</i> , 2016, 13, .	2.1	14
28	Large Eddy Simulation of Premixed Combustion With a Thickened-Flame Approach. <i>Journal of Engineering for Gas Turbines and Power</i> , 2009, 131, .	1.1	13
29	Modal decomposition of turbulent supersonic cavity. <i>Shock Waves</i> , 2019, 29, 135-151.	1.9	13
30	Investigation of shock wave interactions involving stationary and moving wedges. <i>Physics of Fluids</i> , 2020, 32, .	4.0	13
31	An Experimental and Computational Study of a Swirl-Stabilized Premixed Flame. <i>Journal of Engineering for Gas Turbines and Power</i> , 2010, 132, .	1.1	12
32	Assessment of soot formation models in lifted ethylene/air turbulent diffusion flame. <i>Thermal Science and Engineering Progress</i> , 2017, 3, 49-61.	2.7	11
33	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
34	Characteristics of shock tube generated compressible vortex rings at very high shock Mach numbers. <i>Physics of Fluids</i> , 2021, 33, .	4.0	11
35	Numerical modeling of soot formation in a turbulent C ₂ H ₄ /air diffusion flame. <i>International Journal of Spray and Combustion Dynamics</i> , 2016, 8, 67-85.	1.0	10
36	Investigation of the sensitivity of turbulent closures and coupling of hybrid RANS-LES models for predicting flow fields with separation and reattachment. <i>International Journal for Numerical Methods in Fluids</i> , 2017, 83, 917-939.	1.6	10

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37	Numerical study of trailing and leading vortex dynamics in a forced jet with coflow. Computers and Fluids, 2019, 181, 314-344.	2.5	9
38	Flash Boiling in Sprays: Recent Developments and Modeling. Journal of the Indian Institute of Science, 2019, 99, 93-104.	1.9	9
39	On the fluidic behavior of an over-expanded planar plug nozzle under lateral confinement. Physics of Fluids, 2020, 32, 086106.	4.0	9
40	Flow characteristics of elastically mounted slit cylinder at sub-critical Reynolds number. Physics of Fluids, 2021, 33, .	4.0	9
41	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
42	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
43	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
44	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
45	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
46	Pore-Scale Simulation of Shear Thinning Fluid Flow Using Lattice Boltzmann Method. Transport in Porous Media, 2018, 121, 753-782.	2.6	7
47	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
48	Effect of vortex and entropy sources in sound generation for compressible cavity flow. Physics of Fluids, 2021, 33, .	4.0	6
49	Numerical Investigation of Coaxial GCH4/LOx Combustion at Supercritical Pressures. Combustion Science and Technology, 2020, , 1-25.	2.3	5
50	On the unsteady dynamics of partially shrouded compressible jets. Experiments in Fluids, 2021, 62, 1.	2.4	5
51	Numerical Investigation of Delft-Jet-in-Hot-Coflow (DJHC) Burner Using Probability Density Function (PDF) Transport Modeling. , 2013, , .		4
52	Numerical analysis of dilute methanol spray flames in vitiated coflow using extended flamelet generated manifold model. Physics of Fluids, 2022, 34, .	4.0	4
53	An Experimental and Computational Study of a Swirl-Stabilized Premixed Flame. , 2009, , .		3
54	Assessment of RANS based models in a supersonic flow. AIP Conference Proceedings, 2015, , .	0.4	3

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55	Identification of coherent structures in a supersonic flow past backward facing step. AIP Conference Proceedings, 2015, , .	0.4	3
56	A Hybrid Flamelet Generated Manifold Model for Modeling Partially Premixed Turbulent Combustion Flames. , 2017, , .		3
57	Lattice Boltzmann simulations of anode supported solid oxide fuel cell. AIP Conference Proceedings, 2019, , .	0.4	3
58	Mathematical modeling of flash boiling phenomena in superheated sprays at low degree of superheat using dirichlet hyperboloids. International Journal of Multiphase Flow, 2020, 130, 103366.	3.4	3
59	FLOW PAST STATIONARY AND OSCILLATING AIRFOIL AT A LOW REYNOLDS NUMBER USING SHARP INTERFACE IMMERSSED-BOUNDARY APPROACH. Journal of Flow Visualization and Image Processing, 2020, 27, 47-69.	0.5	3
60	Large Eddy Simulation of Premixed Combustion With a Thickened-Flame Approach. , 2008, , .		2
61	Assessment of pressure reconstruction schemes in sharp interface immersed boundary method. AIP Conference Proceedings, 2018, , .	0.4	2
62	Finite element computation of turbulent flow past a multi-element airfoil. International Journal of Computational Fluid Dynamics, 2006, 20, 563-577.	1.2	1
63	Soot Formation in Turbulent Diffusion Flames: Effect of Differential Diffusion. , 2017, , 193-216.		1
64	Numerical simulations of 3D compressible vortex ring. AIP Conference Proceedings, 2017, , .	0.4	1
65	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
66	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
67	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. Computers and Mathematics With Applications, 2021, 83, 1-3.	2.7	1
68	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
69	A multiscale approach for stable relaxation parameter values in lattice Boltzmann simulations of heat and mass transport in porous media. Numerical Heat Transfer, Part B: Fundamentals, 2022, 82, 41-59.	0.9	1
70	Investigation of flow structures in hydrogen-enriched premixed combustion. , 2013, , .		0
71	Investigation of flow structures in supersonic flow with mass injection. AIP Conference Proceedings, 2017, , .	0.4	0
72	Passive control of bifurcation phenomenon in sudden expansion flow. AIP Conference Proceedings, 2017, , .	0.4	0

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73	Transported Probability Density Function Method for MILD Combustion. Energy, Environment, and Sustainability, 2018, , 397-427.	1.0	0
74	Study of wall adaptive SGS models for LES of subsonic and supersonic flows. AIP Conference Proceedings, 2018, , .	0.4	0
75	A dynamic two-coefficient wall adapting local eddy viscosity model. AIP Conference Proceedings, 2019, , .	0.4	0
76	Water faucet problem by mixture two phase flow equations. AIP Conference Proceedings, 2019, , .	0.4	0
77	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
78	Film Cooling Aspects of a Dual Bell Nozzle. Lecture Notes in Mechanical Engineering, 2021, , 99-107.	0.4	0
79	Numerical Investigation of Flow-Acoustics Coupling in a Half-Dump Combustor Using Hybrid CFD-CAA Methodology. Green Energy and Technology, 2022, , 337-359.	0.6	0
80	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. Journal of Fusion Energy, 2021, 40, 1.	1.2	0
81	Transported PDF Modeling of Jet-in-Hot-Coflow Flames. Green Energy and Technology, 2021, , 439-462.	0.6	0