Andrea Lani

List of Publications by Year
in descending order

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54	894	430874	501196
papers	citations	18	28
		h-index	g-index

55	55	55	439
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effects of mesh topology on MHD solution features in coronal simulations. Journal of Plasma Physics, 2022, 88, .	2.1	9
2	r-adaptive algorithms for supersonic flows with high-order Flux Reconstruction methods. Computer Physics Communications, 2022, 276, 108373.	7.5	1
3	Development of an implicit high-order flux reconstruction solver for the Langtry-Menter Laminar-Turbulent Transition RANS model. Computer Physics Communications, 2022, 278, 108408.	7.5	4
4	r-adaptive algorithms for high-speed flows and plasma simulations. Computer Physics Communications, 2021, 261, 107700.	7.5	7
5	r-adaptive Mesh Algorithms with High-order Flux Reconstruction Scheme for High-speed Flows. , 2021, , .		1
6	Radio communication blackout analysis of ExoMars re-entry mission using raytracing method. , 2021, , .		1
7	Two-fluid Modeling of Acoustic Wave Propagation in Gravitationally Stratified Isothermal Media. Astrophysical Journal, 2021, 911, 119.	4.5	18
8	Development of a GPU-Enabled High-Order Flux Reconstruction Solver for High-Speed Flows. , 2021, , .		2
9	Blackout analysis of Mars entry missions. Journal of Fluid Mechanics, 2020, 904, .	3.4	14
10	The Virtual Space Weather Modelling Centre. Journal of Space Weather and Space Climate, 2020, 10, 14.	3.3	11
11	EUropean Heliospheric FORecasting Information Asset 2.0. Journal of Space Weather and Space Climate, 2020, 10, 57.	3.3	21
12	Implicit high-order flux reconstruction solver for high-speed compressible flows. Computer Physics Communications, 2019, 242, 1-24.	7.5	23
13	A GPU-enabled implicit Finite Volume solver for the ideal two-fluid plasma model on unstructured grids. Computer Physics Communications, 2019, 239, 16-32.	7.5	12
14	Physics-Based Mesh Fitting Algorithms for Hypersonic Flows Simulations. , 2019, , .		1
15	Implicit High-Order Flux Reconstruction Positivity Preserving LLAV Scheme for Viscous High-Speed Flows. , 2019, , .		3
16	High-Order Flux Reconstruction Scheme for Thermo-Chemical Nonequilibrium High-Speed Flows. , 2019, , .		1
17	An entropy-variables-based formulation of residual distribution schemes for non-equilibrium flows. Journal of Computational Physics, 2018, 362, 163-189.	3.8	5
18	A Versatile Numerical Method for the Multi-Fluid Plasma Model in Partially- and Fully-Ionized Plasmas. Journal of Physics: Conference Series, 2018, 1031, 012015.	0.4	6

#	Article	IF	Citations
19	Fully-implicit finite volume method for the ideal two-fluid plasma model. Computer Physics Communications, 2018, 231, 31-44.	7.5	23
20	Multi-fluid Modeling of Magnetosonic Wave Propagation in the Solar Chromosphere: Effects of Impact Ionization and Radiative Recombination. Astrophysical Journal, 2017, 836, 197.	4.5	37
21	Assessment of predictive capabilities for aerodynamic heating in hypersonic flow. Progress in Aerospace Sciences, 2017, 90, 39-53.	12.1	65
22	Effect of Radiation on Chromospheric Magnetic Reconnection: Reactive and Collisional Multi-fluid Simulations. Astrophysical Journal, 2017, 842, 117.	4.5	29
23	3D Radiative Heat Transfer Calculations using Monte Carlo Ray Tracing and the Hybrid Statistical Narrow Band Model for Hypersonic Vehicles. , 2017, , .		3
24	Unsteady simulation of hypersonic flow around a heat flux probe in ground testing conditions. International Journal of Heat and Mass Transfer, 2017, 113, 889-897.	4.8	4
25	SF: An Open Source Object-Oriented Platform for Unstructured Shock-Fitting Methods. Shock Wave and High Pressure Phenomena, 2017, , 85-112.	0.1	7
26	Computational Multi-Fluid Model for Partially Ionized and Magnetized Plasma. , 2016, , .		0
27	Analysis of non-equilibrium phenomena in inductively coupled plasma generators. Physics of Plasmas, 2016, 23, .	1.9	24
28	A fully-implicit finite-volume method for multi-fluid reactive and collisional magnetized plasmas on unstructured meshes. Journal of Computational Physics, 2016, 318, 252-276.	3.8	33
29	An energy-dissipative remedy against carbuncle: Application to hypersonic flows around blunt bodies. Computers and Fluids, 2016, 133, 43-54.	2.5	9
30	An object-oriented implementation of a parallel Monte Carlo code for radiation transport. Computer Physics Communications, 2016, 202, 233-261.	7.5	19
31	Assessment of Heat Flux Prediction Capabilities of Residual Distribution Method: Application to Atmospheric Entry Problems. Communications in Computational Physics, 2015, 17, 682-702.	1.7	12
32	Assessment of Residual Distribution Method Heat Flux Prediction Capabilities: Application to Atmospheric Entry Problems. , 2014, , .		1
33	Modeling of Non-equilibrium Plasmas in an Inductively Coupled Plasma Facility. , 2014, , .		0
34	A GPU-enabled Finite Volume solver for global magnetospheric simulations on unstructured grids. Computer Physics Communications, 2014, 185, 2538-2557.	7.5	28
35	Modeling of non-equilibrium phenomena in expanding flows by means of a collisional-radiative model. Physics of Plasmas, 2013, 20, .	1.9	56
36	An efficient Monte Carlo method for radiation transport in aerothermodynamic simulations. , 2013, , .		2

#	Article	IF	Citations
37	Numerical exploration of transient flow phenomena in hypersonic gun tunnel. , 2013, , .		0
38	COOLFluiD: an open computational platform for multi-physics simulation and research. , 2013, , .		25
39	Collisional radiative coarse-grain model for ionization in air. Physics of Fluids, 2013, 25, .	4.0	73
40	Conservative Residual Distribution Method for Viscous Double Cone Flows in Thermochemical Nonequilibrium. Communications in Computational Physics, 2013, 13, 479-501.	1.7	27
41	Variable High-Order Multiblock Overlapping Grid Methods for Mixed Steady and Unsteady Multiscale Viscous Flows, Part II: Hypersonic Nonequilibrium Flows. Communications in Computational Physics, 2013, 13, 583-602.	1.7	9
42	Numerical Investigations of Local Correlation-Based Transition Model in Hypersonic Flows. , 2012, , .		3
43	Arbitrary Lagrangian Eulerian Simulation of a Moving Piston in Hypersonic Ground Test Facility. , 2012, , .		3
44	Assessment of CFD capability for prediction of hypersonic shock interactions. Progress in Aerospace Sciences, 2012, 48-49, 8-26.	12.1	104
45	A Residual Distribution Method for Symmetrized Systems in Thermochemical Nonequilibrium. , 2011, , .		10
46	Assessment and Validation of the Rebuilding process of Test conditions in VKI-Longshot Hypersonic facility. , 2011, , .		1
47	A finite volume implicit time integration method for solving the equations of ideal magnetohydrodynamics for the hyperbolic divergence cleaning approach. Journal of Computational Physics, 2011, 230, 6136-6154.	3.8	38
48	Numerical Simulation of Hypersonic Flow in VKI-Longshot Contoured Nozzle. , 2010, , .		7
49	Reduced Kinetic Mechanism for CFD Applications. , 2009, , .		1
50	Modelling of high-enthalpy, high-Mach number flows. Journal Physics D: Applied Physics, 2009, 42, 194004.	2.8	20
51	Conservative Residual Distribution Method for Hypersonic Flows in Thermochemical Nonequilibrium. , 2009, , .		5
52	Numerical Investigation of the Non Equilibrium Shock-Layer Around the EXPERT Vehicle. , 2007, , .		11
53	Reusable Object-Oriented Solutions for Numerical Simulation of PDEs in a High Performance Environment. Scientific Programming, 2006, 14, 111-139.	0.7	21
54	The COOLFluiD Framework: Design Solutions for High Performance Object Oriented Scientific Computing Software. Lecture Notes in Computer Science, 2005, , 279-286.	1.3	36