Rowan Gollan

List of Publications by Year
in descending order

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34 papers	540 citations	840776 11 h-index	752698 20 g-index
34 all docs	34 docs citations	34 times ranked	269 citing authors

#	Article	IF	Citations
1	About the formulation, verification and validation of the hypersonic flow solver Eilmer. International Journal for Numerical Methods in Fluids, 2013, 73, 19-57.	1.6	108
2	Suppression of instabilities in a premixed methaneâ€“air flame in a narrow channel via hydrogen/carbon monoxide addition. Combustion and Flame, 2016, 173, 266-275.	5.2	75
3	Design of Modular Shape-Transition Inlets for a Conical Hypersonic Vehicle. Journal of Propulsion and Power, 2013, 29, 832-838.	2.2	37
4	Use of the method of manufactured solutions for the verification of conjugate heat transfer solvers. Journal of Computational Physics, 2016, 307, 308-320.	3.8	34
5	Implementation of a Compressible-Flow Simulation Code in the D Programming Language. Applied Mechanics and Materials, 0, 846, 54-60.	0.2	31
6	Helmholtz Resonance of Pitot Pressure Measurements in Impulsive Hypersonic Test Facilities. AIAA Journal, 2009, 47, 2430-2439.	2.6	27
7	On the influence of modelling choices on combustion in narrow channels. Computers and Fluids, 2017, 144, 117-136.	2.5	25
8	Numerical study of the effect of wall temperature profiles on the premixed methaneâ€“air flame dynamics in a narrow channel. RSC Advances, 2017, 7, 39940-39954.	3.6	22
9	Development and commissioning of the T6 Stalker Tunnel. Experiments in Fluids, 2021, 62, 1.	2.4	22
10	Investigation of REST-class Hypersonic Inlet Designs. , 2011, , .		19
11	Development of a Computational Tool to Simulate Foil Bearings for Supercritical CO2 Cycles. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	1.1	18
12	Experimental and Computational Fluid Dynamics Studies of Superorbital Earth Re-entry. , 2016, , .		15
13	Application of a wall function to simulate turbulent flows in foil bearings at high rotational speeds. Tribology International, 2017, 115, 546-556.	5.9	13
14	Unsteadiness boundaries in supersonic flow over double cones. Journal of Fluid Mechanics, 2021, 916, .	3.4	12
15	Characterisation of the eddy dissipation model for the analysis of hydrogen-fuelled scramjets. Aeronautical Journal, 2019, 123, 536-565.	1.6	11
16	Discrete Adjoint Optimization of a Hypersonic Inlet. AIAA Journal, 2020, 58, 2621-2634.	2.6	11
17	Expansion Tube Experiments of Magnetohydrodynamic Aerobraking for Superorbital Earth Reentry. AIAA Journal, 0, , 1-13.	2.6	10
18	Magnetohydrodynamic Drag Measurements in an Expansion Tunnel with Argon Test Gas. AIAA Journal, 2020, 58, 4495-4504.	2.6	9

#	Article	IF	Citations
19	Numerical Modeling and Simulation of Supersonic Flows in Propulsion Systems by Open-Source Solvers. , 2017, , .		6
20	Experimental and Computational Fluid Dynamics Study of Hayabusa Reentry Peak Heating. Journal of Spacecraft and Rockets, 2021, 58, 1833-1846.	1.9	6
21	Correlation for Species Concentration on a Hypersonic Stagnation Point with Mass Injection. AIAA Journal, 2022, 60, 2798-2809.	2.6	5
22	A simulation technique for radiating shock tube flows. , 2009, , 465-470.		4
23	Magnetohydrodynamic Experiments of Total Heat Flux Mitigation for Superorbital Earth Reentry. AIAA Journal, 2022, 60, 5046-5059.	2.6	4
24	Analytical Maps of Aerodynamic Damping as a Function of Operating Condition for a Compressor Profile. , 2006, , 1133.		3
25	Effect of Streamwise Vortices on Scramjets Porthole Injection Mixing. , 2015, , .		2
26	Effect of Vortex-injection Interaction on Wall Heat Transfer in a Flat Plate with Fin Corner Geometry. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2017, 15, a17-a26.	0.2	2
27	Experimental and numerical heat transfer from vortex-injection interaction in scramjet flowfields. Aeronautical Journal, 2020, 124, 1545-1567.	1.6	2
28	Electron number density measurements in a Saturn entry condition. , 2021, , .		2
29	A Design Method for Three-Dimensional Scramjet Nozzles with Shape Transition. Journal of Propulsion and Power, 2022, 38, 3-17.	2.2	2
30	Experimental Study of Total Heat Flux Mitigation Using Magnetohydrodynamic Flow Control in Superorbital Earth Reentry Flight. , 2022, , .		2
31	Vibrational state-to-state modeling of a recombining nitrogen experiment. , 2019, , .		1
32	Atomic State-to-State Modeling of Ionization Nonequilibrium in a Recombining Nitrogen Plasma. , 2020, , .		0
33	Quantitative Comparison of Numerical Errors for High-Speed Flux Schemes. , 2020, , .		0
34	Electron Number Density Measurements in a Saturn Entry Condition. AIAA Journal, 0, , 1-13.	2.6	0