

David B Goldstein

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Modeling of Ionized Gas Flows with a Velocity-space Hybrid Boltzmann Solver. , 2021, , .		1
2	Hybrid dust-tracking method for modeling Io's Tvashtar volcanic plume. Icarus, 2021, 359, 114274.	2.5	2
3	Variations in the canopy shock structures of massive extraterrestrial plumes: Parametric DSMC simulation of 2007 Tvashtar observations. Icarus, 2021, 363, 114431.	2.5	2
4	The Evolution of a Spacecraft-Generated Lunar Exosphere. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006464.	3.6	13
5	Characterizing the hydroxyl observation of the LCROSS UV-visible spectrometer: Modeling of the impact plume. Icarus, 2020, 343, 113626.	2.5	3
6	Effect of pressure gradients on the different stages of roughness induced boundary layer transition. International Journal of Heat and Fluid Flow, 2020, 86, 108688.	2.4	3
7	Simulation of Io's plumes and Jupiter's plasma torus. Physics of Fluids, 2019, 31, 077103.	4.0	11
8	Roughness induced transition: A vorticity point of view. Physics of Fluids, 2019, 31, .	4.0	17
9	Direct Simulation Monte Carlo Shock Simulation of Saturn Entry Probe Conditions. Journal of Thermophysics and Heat Transfer, 2018, 32, 680-690.	1.6	8
10	Sensitivity Analysis of Direct Simulation Monte Carlo Parameters for Ionizing Hypersonic Flows. Journal of Thermophysics and Heat Transfer, 2018, 32, 90-102.	1.6	10
11	The interaction of Io's plumes and sublimation atmosphere. Icarus, 2017, 294, 81-97.	2.5	17
12	Rarefied gas dynamic simulation of transfer and escape in the Pluto-Charon system. Icarus, 2017, 287, 87-102.	2.5	26
13	Constraining the Enceladus plume using numerical simulation and Cassini data. Icarus, 2017, 281, 357-378.	2.5	14
14	Lunar Atmosphere, Effects of Cometary Impacts. , 2017, , 1-7.		0
15	Sensitivity analysis of DSMC parameters for an 11-species air hypersonic flow. AIP Conference Proceedings, 2016, , .	0.4	0
16	Lunar Dust Transport Resulting from Single- and Four-Engine Plume Impingement. AIAA Journal, 2016, 54, 1339-1349.	2.6	15
17	Three-dimensional simulation of gas and dust in Io's Pele plume. Icarus, 2015, 257, 251-274.	2.5	19
18	Approach for Modeling Rocket Plume Impingement and Dust Dispersal on the Moon. Journal of Spacecraft and Rockets, 2015, 52, 362-374.	1.9	54

#	ARTICLE	IF	CITATIONS
19	On understanding the physics of the Enceladus south polar plume via numerical simulation. <i>Icarus</i> , 2015, 253, 205-222.	2.5	34
20	Evolution of the dust and water ice plume components as observed by the LCROSS visible camera and UV-visible spectrometer. <i>Icarus</i> , 2015, 254, 262-275.	2.5	14
21	Sensitivity Analysis of DSMC Parameters for Ionizing Hypersonic Flows. , 2015, , .		5
22	Near-field flow structures about subcritical surface roughness. <i>Physics of Fluids</i> , 2014, 26, .	4.0	9
23	Influence of ab initio chemistry models on simulations of the Ionian atmosphere. <i>Icarus</i> , 2014, 239, 32-38.	2.5	3
24	Effects of a gain-based optimal forcing on turbulent channel flow. , 2014, , .		1
25	Global sensitivity analysis for DSMC simulations of hypersonic shocks. <i>Journal of Computational Physics</i> , 2013, 246, 184-206.	3.8	17
26	A parametric study of Io's thermophysical surface properties and subsequent numerical atmospheric simulations based on the best fit parameters. <i>Icarus</i> , 2012, 220, 225-253.	2.5	31
27	Unsteady flows in Io's atmosphere caused by condensation and sublimation during and after eclipse: Numerical study based on a model Boltzmann equation. <i>Icarus</i> , 2012, 221, 658-669.	2.5	5
28	Simulations of a comet impact on the Moon and associated ice deposition in polar cold traps. <i>Icarus</i> , 2011, 215, 1-16.	2.5	55
29	Direct numerical simulations of riblets to constrain the growth of turbulent spots. <i>Journal of Fluid Mechanics</i> , 2011, 668, 267-292.	3.4	37
30	Simulation of Plasma Interaction with Io's Atmosphere. , 2011, , .		5
31	Loki's A Lava Lake in Rarefied Circumplanetary Cross Flow. , 2011, , .		2
32	Multi-wavelength simulations of atmospheric radiation from Io with a 3-D spherical-shell backward Monte Carlo radiative transfer model. <i>Icarus</i> , 2010, 207, 394-408.	2.5	19
33	A comprehensive numerical simulation of Io's sublimation-driven atmosphere. <i>Icarus</i> , 2010, 207, 409-432.	2.5	49
34	An Examination of Trapped Bubbles for Viscous Drag Reduction on Submerged Surfaces. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2010, 132, .	1.5	17
35	Io's Atmospheric Freeze-out Dynamics in the Presence of a Non-condensable Species. , 2008, , .		1
36	Modeling Io's Sublimation-Driven Atmosphere: Gas Dynamics and Radiation Emission. , 2008, , .		0

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37	Numerical Investigation of Vortex Onset in Supersonic Taylor-Couette Flow. Journal of Thermophysics and Heat Transfer, 2006, 20, 536-543.	1.6	1
38	Monte Carlo and Navier-Stokes Simulations of Compressible Taylor-Couette Flow. Journal of Thermophysics and Heat Transfer, 2006, 20, 544-551.	1.6	3
39	Use of an axial nose-tip cavity for delaying ablation onset in hypersonic flow. Journal of Fluid Mechanics, 2005, 528, 297-321.	3.4	37
40	Short-time exosphere evolution following an impulsive vapor release on the Moon. Journal of Geophysical Research, 2001, 106, 32841-32845.	3.3	9
41	Hybrid Euler/Direct Simulation Monte Carlo Calculation of Unsteady Slit Flow. Journal of Spacecraft and Rockets, 2000, 37, 753-760.	1.9	71
42	Impacting Lunar Prospector in a cold trap to detect water ice. Geophysical Research Letters, 1999, 26, 1653-1656.	4.0	14
43	Hybrid Euler/Particle Approach for Continuum/Rarefied Flows. Journal of Spacecraft and Rockets, 1998, 35, 258-265.	1.9	104