

# Yevgeniy A Bondar

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

55  
papers

402  
citations

12  
h-index

17  
g-index

75  
ext. papers

526  
ext. citations

2.1  
avg, IF

3.6  
L-index

#	Paper	IF	Citations
55	On the calculation of the electron temperature flowfield in the DSMC studies of ionized re-entry flows. <i>Advances in Aerodynamics</i> , <b>2020</b> , 2,	2.2	1
54	Comparison of the Shakhov kinetic equation and DSMC method as applied to space vehicle aerothermodynamics. <i>Journal of Computational and Applied Mathematics</i> , <b>2020</b> , 364, 112354	2.4	8
53	On the total enthalpy behavior inside a shock wave. <i>Physics of Fluids</i> , <b>2020</b> , 32, 041703	4.4	6
52	R13 moment equations applied to supersonic flow with solid wall interaction <b>2019</b> ,		1
51	Aerothermodynamics of the Federation crew module at high-altitude reentry <b>2019</b> ,		1
50	NO production on the reentry spacecraft thermal protection system surface in the direct simulation Monte Carlo method. <i>Journal of Physics: Conference Series</i> , <b>2019</b> , 1404, 012118	0.3	0
49	Comparison of nonequilibrium dissociation models in the direct simulation Monte Carlo method. <i>Journal of Physics: Conference Series</i> , <b>2019</b> , 1404, 012107	0.3	0
48	Comparison of modern implementations of the direct simulation Monte Carlo method. <i>Journal of Physics: Conference Series</i> , <b>2019</b> , 1404, 012123	0.3	1
47	Evidence-Based Interventions for ASD: A Focus on Applied Behavior Analysis (ABA) Interventions. <i>Psychology, Journal of the Higher School of Economics</i> , <b>2018</b> , 15, 711-727	1.6	4
46	Numerical and experimental study of shock wave formation on the leading edge of a wedge in a high-velocity air <b>2018</b> ,		1
45	Surface recombination in the direct simulation Monte Carlo method. <i>Physics of Fluids</i> , <b>2018</b> , 30, 107105	4.4	13
44	Modeling of the plasma environment of re-entry space vehicles <b>2018</b> ,		1
43	Different variants of R13 moment equations applied to the shock-wave structure. <i>Physics of Fluids</i> , <b>2017</b> , 29, 037105	4.4	24
42	Numerical study of non-equilibrium high-enthalpy separated flows near a double cone and a wedge <b>2017</b> ,		2
41	State-to-state models of vibrational relaxation in Direct Simulation Monte Carlo (DSMC). <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 815, 012011	0.3	1
40	Probabilities for DSMC modelling of CO2 vibrational kinetics <b>2016</b> ,		1
39	The analysis of different variants of R13 equations applied to the shock-wave structure <b>2016</b> ,		6

38	Development and testing of a numerical simulation method for thermally nonequilibrium dissociating flows in ANSYS Fluent. <i>Thermophysics and Aeromechanics</i> , <b>2016</b> , 23, 151-163	0.9	25
37	Effect of surface catalycity on high-altitude aerothermodynamics of reentry vehicles <b>2016</b> ,		2
36	Investigation of an ionized shock layer in a rarefied gas flow around a reentry vehicle <b>2016</b> ,		2
35	Uniform rovibrational collisional N2 bin model for DSMC, with application to atmospheric entry flows <b>2016</b> ,		5
34	Direct simulation of rarefied high-enthalpy flow around the RAM C-II capsule. <i>High Temperature</i> , <b>2016</b> , 54, 383-389	0.8	17
33	Numerical study of non-equilibrium gas flows with shock waves by using the Navier-Stokes equations in the two-temperature approximation <b>2016</b> ,		2
32	Study of the shock wave structure by regularized Grad's set of equations. <i>Physics of Fluids</i> , <b>2015</b> , 27, 037101	1.0	21
31	High-accuracy deterministic solution of the Boltzmann equation for the shock wave structure. <i>Shock Waves</i> , <b>2015</b> , 25, 387-397	1.6	14
30	Comparison of direct simulation Monte Carlo chemistry and vibrational models applied to oxygen shock measurements. <i>Physics of Fluids</i> , <b>2014</b> , 26, 043101	4.4	31
29	Effects of surface chemistry on high-altitude aerothermodynamics of space vehicles <b>2014</b> ,		4
28	A detailed DSMC surface chemistry model <b>2014</b> ,		12
27	Validation of DSMC results for chemically nonequilibrium air flows against measurements of the electron number density in RAM-C II flight experiment <b>2014</b> ,		4
26	Direct Monte Carlo simulation of high-temperature chemical reactions in air. <i>Thermophysics and Aeromechanics</i> , <b>2013</b> , 20, 553-564	0.9	16
25	Numerical study of shock wave entry and propagation in a microchannel. <i>Thermophysics and Aeromechanics</i> , <b>2012</b> , 19, 17-32	0.9	4
24	Accuracy analysis of DSMC chemistry models applied to a normal shock wave <b>2012</b> ,		5
23	Study of the shock wave structure by regularized Grad's set of equations <b>2012</b> ,		8
22	Rarefaction effects in hypersonic flow about a blunted leading edge. <i>Thermophysics and Aeromechanics</i> , <b>2011</b> , 18, 523-534	0.9	3
21	Numerical Study of the Shock Wave Propagation in a Micron-Scale Contracting Channel <b>2011</b> ,		2

20	Hydrogen-Oxygen Detonation Study by the DSMC Method <b>2011</b> ,		5
19	DSMC Modeling of High-Temperature Chemical Reactions in Air <b>2011</b> ,		1
18	Parallel Object-Oriented Software System for DSMC Modeling of High-Altitude Aerothermodynamic Problems <b>2011</b> ,		21
17	Numerical Study of Triple-Shock-Wave Structure in Steady Irregular Reflection <b>2011</b> ,		2
16	A Study of the Finite Flat Plate Problem Using Various Kinetic and Continuum Models <b>2011</b> ,		1
15	Rarefaction and Non-equilibrium Effects in Hypersonic Flows about Leading Edges of Small Bluntness <b>2011</b> ,		2
14	DSMC Study of an H <sub>2</sub> /O <sub>2</sub> Detonation Wave Structure <b>2010</b> ,		2
13	Viscosity effects on weak irregular reflection of shock waves in steady flow. <i>Progress in Aerospace Sciences</i> , <b>2010</b> , 46, 89-105	8.8	12
12	Numerical simulation of shock wave propagation in microchannels using continuum and kinetic approaches. <i>Shock Waves</i> , <b>2009</b> , 19, 307-316	1.6	30
11	Viscous Effects in Steady Reflection of Strong Shock Waves. <i>AIAA Journal</i> , <b>2009</b> , 47, 1263-1269	2.1	10
10	DSMC Modeling of the Detonation Wave Structure in Narrow Channels <b>2009</b> ,		2
9	Resonant VV Exchange in the DSMC Method with the Larsen-Borgnakke Model <b>2008</b> ,		1
8	DSMC Dissociation Model Based on Two-Temperature Chemical Rate Constant <b>2007</b> ,		9
7	Numerical Modeling of Near-Continuum Flow over a Wedge with Real Gas Effects. <i>Journal of Thermophysics and Heat Transfer</i> , <b>2006</b> , 20, 699-709	1.3	16
6	Direct statistical Monte Carlo simulation of the shock-wave structure in dissociating gas. <i>Thermophysics and Aeromechanics</i> , <b>2006</b> , 13, 239-256	0.9	1
5	Object-Oriented Software Design of Real Gas Effects for the DSMC Method. <i>AIP Conference Proceedings</i> , <b>2005</b> ,	0	16
4	Analysis of Repeated Collisions in the DSMC Method. <i>AIP Conference Proceedings</i> , <b>2005</b> ,	0	7
3	Plane Couette Flow Computations by TRMC and MFS Methods. <i>AIP Conference Proceedings</i> , <b>2005</b> ,	0	3

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| 2 | On the Accuracy of DSMC Modeling of Rarefied Flows with Real Gas Effects. <i>AIP Conference Proceedings</i> , <b>2005</b> ,       | o | 7 |
| 1 | Study of the Shock Wave Structure about a Body Entering the Martian Atmosphere. <i>AIP Conference Proceedings</i> , <b>2003</b> , | o | 3 |