

Ivalo M Mladenov

List of Publications by Citations

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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.

66 papers	341 citations	9 h-index	16 g-index
119 ext. papers	382 ext. citations	1 avg, IF	3.4 L-index

#	Paper	IF	Citations
66	Cylindrical equilibrium shapes of fluid membranes. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2008 , 41, 435201	2	42
65	Analytic description and explicit parametrisation of the equilibrium shapes of elastic rings and tubes under uniform hydrostatic pressure. <i>International Journal of Mechanical Sciences</i> , 2011 , 53, 355-364	5.5	37
64	Geometric quantisation of the MIC-Kepler problem. <i>Journal of Physics A</i> , 1987 , 20, 5865-5871		31
63	Geometric quantization of the multidimensional Kepler problem. <i>Journal of Geometry and Physics</i> , 1985 , 2, 17-24	1.2	27
62	The Mylar Balloon Revisited. <i>American Mathematical Monthly</i> , 2003 , 110, 761-784	0.3	22
61	Vector decomposition of finite rotations. <i>Reports on Mathematical Physics</i> , 2011 , 68, 107-117	0.8	12
60	New solutions of the shape equation. <i>European Physical Journal B</i> , 2002 , 29, 327-330	1.2	12
59	Reduction in stages and complete quantization of the MIC-Kepler problem. <i>Journal of Physics A</i> , 1999 , 32, 3779-3791		10
58	An extension of the Saxon-Hutner theorem in the relativistic domain. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1989 , 137, 313-318	2.3	10
57	Equilibrium Configurations of Lipid Bilayer Membranes and Carbon Nanostructures. <i>Communications in Theoretical Physics</i> , 2013 , 59, 213-228	2.4	9
56	The Mylar Balloon Revisited. <i>American Mathematical Monthly</i> , 2003 , 110, 761	0.3	9
55	New Geometrical Applications of the Elliptic Integrals: The Mylar Balloon. <i>Journal of Nonlinear Mathematical Physics</i> , 2004 , 11, 55	0.9	8
54	New perspective on the gimbal lock problem 2013 ,		7
53	Traveling Wave Solutions of the Gardner Equation and Motion of Plane Curves Governed by the mKdV Flow 2011 ,		7
52	Geometric quantization of the five-dimensional Kepler problem. <i>Foundations of Physics</i> , 1991 , 21, 871-882		7
51	Wigner rotation and Thomas precession: geometric phases and related physical theories. <i>Journal of the Korean Physical Society</i> , 2015 , 66, 1656-1663	0.6	6
50	Generalization of the Saxon-Hutner Theorem in the Relativistic Domain. <i>Physica Status Solidi (B): Basic Research</i> , 1988 , 145, K115-K119	1.3	6

49	Scattering of charged particles off dyons. <i>Journal of Physics A</i> , 1988 , 21, L1-L4		6
48	Method for computing the characteristic polynomial. <i>International Journal of Quantum Chemistry</i> , 1980 , 18, 339-341	2.1	6
47	Comment on Shape transition of unstrained flattest single-walled carbon nanotubes under pressure[J. Appl. Phys. 115, 044512 (2014)]. <i>Journal of Applied Physics</i> , 2015 , 117, 196101	2.5	4
46	Generalized Euler decompositions of some six-dimensional Lie groups 2014 ,		4
45	On Some Deformations of the Cassinian Oval 2011 ,		4
44	On the Plane Curves whose Curvature Depends on the Distance from the Origin 2010 ,		4
43	From the Kinematics of Precession Motion to Generalized Rabi Cycles. <i>Advances in Mathematical Physics</i> , 2018 , 2018, 1-10	1.1	3
42	Explicit parametrizations of Willmore surfaces 2014 ,		3
41	Mechanics of Infinitesimal Test Bodies on Delaunay Surfaces: Spheres and Cylinders as Limits of Unduloids and Their Action-Angle Analysis. <i>Journal of Geometry and Symmetry in Physics</i> , 2019 , 53, 55-84 ^{1.6}		3
40	Factorizations in special relativity and quantum scattering on the line II 2016 ,		3
39	Mechanics of infinitesimal gyroscopes on Mylar balloons and their action-angle analysis. <i>Mathematical Methods in the Applied Sciences</i> , 2020 , 43, 3040-3051	2.3	2
38	On the compositions of rotations 2015 ,		2
37	Elastic spirals 2014 ,		2
36	Deformation of injected vesicles adhering onto flat rigid substrates. <i>Computers and Mathematics With Applications</i> , 2012 , 64, 214-220	2.7	2
35	Some new results on three-dimensional rotations and pseudo-rotations 2013 ,		2
34	Analytic Description of the Equilibrium Shapes of Elastic Rings Under Uniform Hydrostatic Pressure 2011 ,		2
33	Quantization on curved surfaces. <i>International Journal of Quantum Chemistry</i> , 2002 , 89, 248-254	2.1	2
32	Reductions and quantization. <i>International Journal of Theoretical Physics</i> , 1989 , 28, 1255-1267	1.1	2

31	Sturmian Spirals in Lorentz-Minkowski Plane 2015 ,		2
30	Elastic Sturmian spirals in the Lorentz-Minkowski plane. <i>Open Mathematics</i> , 2016 , 14, 1149-1156	0.8	2
29	Membrane fusion based on the geometry of the stalk model. <i>Mechanics Research Communications</i> , 2015 , 63, 54-60	2.2	1
28	Two-axes decompositions of (pseudo-)rotations and some of their applications 2014 ,		1
27	On the necessary and sufficient condition for the decomposition of orthogonal transformations 2015 ,		1
26	About parametric representations of $SO(n)$ matrices and plane rotations 2012 ,		1
25	Saxon-Hutner theorem via matrix exponential. <i>Europhysics Letters</i> , 1997 , 37, 159-164	1.6	1
24	Geometry of the Saxon-Hutner theorem. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1997 , 230, 245-252	2.3	1
23	On Debye-Hückel's Theory. <i>Europhysics Letters</i> , 1993 , 24, 693-698	1.6	1
22	Quantization of the moment map of coupled harmonic oscillators. <i>Journal of Physics A</i> , 1993 , 26, 7115-7123		1
21	Serret's Curves, their Generalization and Explicit Parametrizations 2013 , 383-390		1
20	Classical motions of infinitesimal rotators on Mylar balloons. <i>Mathematical Methods in the Applied Sciences</i> , 2020 , 43, 9874-9887	2.3	0
19	Factorizations in Special Relativity and Quantum Scattering on the Line. <i>Studies in Computational Intelligence</i> , 2017 , 1-14	0.8	
18	On the geometry of the rotating liquid drop. <i>Mathematics and Computers in Simulation</i> , 2016 , 127, 194-203		
17	Covariant Decomposition of the Three-Dimensional Rotations. <i>Lecture Notes in Computer Science</i> , 2014 , 504-511	0.9	
16	Biological Membranes. <i>Forum for Interdisciplinary Mathematics</i> , 2017 , 69-82	0.2	
15	Equations of Equilibrium States of Membranes. <i>Forum for Interdisciplinary Mathematics</i> , 2017 , 151-166	0.2	
14	Surface Tension and Equilibrium. <i>Forum for Interdisciplinary Mathematics</i> , 2017 , 83-149	0.2	

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| 13 | Exact Solutions and Applications. <i>Forum for Interdisciplinary Mathematics</i> , 2017 , 167-199 | 0.2 |
| 12 | Planar Curves Whose Curvature Depends Only on the Distance From a Fixed Point. <i>Forum for Interdisciplinary Mathematics</i> , 2017 , 47-68 | 0.2 |
| 11 | New forms of the equations of the attitude kinematics. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2014 , 14, 87-88 | 0.2 |
| 10 | An approach for decomposition of finite rotations. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2012 , 12, 45-46 | 0.2 |
| 9 | Instability of protein drops via applied electric field: mathematical and experimental aspects. <i>Annals of the New York Academy of Sciences</i> , 2009 , 1161, 246-55 | 6.5 |
| 8 | The matrizant and Saxon - Hutner theorem. <i>Journal of Physics A</i> , 1997 , 30, 1689-1694 | |
| 7 | An approach to reduction of the real symmetric 3 B secular problem and applications. <i>Physics of Atomic Nuclei</i> , 2005 , 68, 1916-1921 | 0.4 |
| 6 | Kirkwood's formula revisited. <i>Europhysics Letters</i> , 1996 , 33, 577-582 | 1.6 |
| 5 | Geometric quantization of the Kepler problem with a magnetic charge 1988 , 275-281 | |
| 4 | On the Spectrum of the Geodesic Flow on Spheres 1994 , 87-92 | |
| 3 | Unduloid-like Equilibrium Shapes of Carbon Nanotubes Subjected to Hydrostatic Pressure 2013 , 195-202 | |
| 2 | Lie Group Analysis of the Willmore and Membrane Shape Equations. <i>Lecture Notes in Applied and Computational Mechanics</i> , 2014 , 365-376 | 0.3 |
| 1 | Symmetries and Some Special Solutions of the Helfrich Model. <i>Lecture Notes in Applied and Computational Mechanics</i> , 2014 , 353-364 | 0.3 |