Ivalo M Mladenov

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.

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	Classical motions of infinitesimal rotators on Mylar balloons. *Mathematical Methods in the Applied Sciences*, **2020**, 43, 9874-9887	2.3	0
65	Mechanics of infinitesimal gyroscopes on Mylar balloons and their action-angle analysis. *Mathematical Methods in the Applied Sciences*, **2020**, 43, 3040-3051	2.3	2
64	Mechanics of Infinitesimal Test Bodies on Delaunay Surfaces: Spheres and Cylinders as Limits of Unduloids and Their Action-Angle Analysis. *Journal of Geometry and Symmetry in Physics*, **2019**, 53, 55-84	1.6	3
63	From the Kinematics of Precession Motion to Generalized Rabi Cycles. *Advances in Mathematical Physics*, **2018**, 2018, 1-10	1.1	3
62	Factorizations in Special Relativity and Quantum Scattering on the Line. *Studies in Computational Intelligence*, **2017**, 1-14	0.8	
61	Biological Membranes. *Forum for Interdisciplinary Mathematics*, **2017**, 69-82	0.2	
60	Equations of Equilibrium States of Membranes. *Forum for Interdisciplinary Mathematics*, **2017**, 151-166	0.2	
59	Surface Tension and Equilibrium. *Forum for Interdisciplinary Mathematics*, **2017**, 83-149	0.2	
58	Exact Solutions and Applications. *Forum for Interdisciplinary Mathematics*, **2017**, 167-199	0.2	
57	Planar Curves Whose Curvature Depends Only on the Distance From a Fixed Point. *Forum for Interdisciplinary Mathematics*, **2017**, 47-68	0.2	
56	On the geometry of the rotating liquid drop. *Mathematics and Computers in Simulation*, **2016**, 127, 194-202	0.8	
55	Factorizations in special relativity and quantum scattering on the line II **2016**,		3
54	Elastic Sturmian spirals in the Lorentz-Minkowski plane. *Open Mathematics*, **2016**, 14, 1149-1156	0.8	2
53	Membrane fusion based on the geometry of the stalk model. *Mechanics Research Communications*, **2015**, 63, 54-60	2.2	1
52	Wigner rotation and Thomas precession: geometric phases and related physical theories. *Journal of the Korean Physical Society*, **2015**, 66, 1656-1663	0.6	6
51	Comment on "Shape transition of unstrained flattest single-walled carbon nanotubes under pressure" [J. Appl. Phys. 115, 044512 (2014)]. *Journal of Applied Physics*, **2015**, 117, 196101	2.5	4
50	On the necessary and sufficient condition for the decomposition of orthogonal transformations **2015**,		1

49	On the compositions of rotations **2015**,		2
48	Sturmian Spirals in Lorentz-Minkowski Plane **2015**,		2
47	Covariant Decomposition of the Three-Dimensional Rotations. *Lecture Notes in Computer Science*, **2014**, 504-511	0.9	
46	Two-axes decompositions of (pseudo-)rotations and some of their applications **2014**,		1
45	Explicit parametrizations of Willmore surfaces **2014**,		3
44	Elastic spirals **2014**,		2
43	Generalized Euler decompositions of some six-dimensional Lie groups **2014**,		4
42	New forms of the equations of the attitude kinematics. *Proceedings in Applied Mathematics and Mechanics*, **2014**, 14, 87-88	0.2	
41	Lie Group Analysis of the Willmore and Membrane Shape Equations. *Lecture Notes in Applied and Computational Mechanics*, **2014**, 365-376	0.3	
40	Symmetries and Some Special Solutions of the Helfrich Model. *Lecture Notes in Applied and Computational Mechanics*, **2014**, 353-364	0.3	
39	Some new results on three-dimensional rotations and pseudo-rotations **2013**,		2
38	New perspective on the gimbal lock problem **2013**,		7
37	Equilibrium Configurations of Lipid Bilayer Membranes and Carbon Nanostructures. *Communications in Theoretical Physics*, **2013**, 59, 213-228	2.4	9
36	Serret□ Curves, their Generalization and Explicit Parametrizations **2013**, 383-390		1
35	Unduloid-like Equilibrium Shapes of Carbon Nanotubes Subjected to Hydrostatic Pressure **2013**, 195-202		
34	An approach for decomposition of finite rotations. *Proceedings in Applied Mathematics and Mechanics*, **2012**, 12, 45-46	0.2	
33	Deformation of injected vesicles adhering onto flat rigid substrates. *Computers and Mathematics With Applications*, **2012**, 64, 214-220	2.7	2
32	About parametric representations of SO(n) matrices and plane rotations **2012**,		1

31	Vector decomposition of finite rotations. *Reports on Mathematical Physics*, **2011**, 68, 107-117	0.8	12
30	On Some Deformations of the Cassinian Oval **2011**,		4
29	Analytic Description of the Equilibrium Shapes of Elastic Rings Under Uniform Hydrostatic Pressure **2011**,		2
28	Analytic description and explicit parametrisation of the equilibrium shapes of elastic rings and tubes under uniform hydrostatic pressure. *International Journal of Mechanical Sciences*, **2011**, 53, 355-364	2.5	37
27	Traveling Wave Solutions of the Gardner Equation and Motion of Plane Curves Governed by the mKdV Flow **2011**,		7
26	On the Plane Curves whose Curvature Depends on the Distance from the Origin **2010**,		4
25	Instability of protein drops via applied electric field: mathematical and experimental aspects. *Annals of the New York Academy of Sciences*, **2009**, 1161, 246-55	6.5	
24	Cylindrical equilibrium shapes of fluid membranes. *Journal of Physics A: Mathematical and Theoretical*, **2008**, 41, 435201	2	42
23	An approach to reduction of the real symmetric 3 □ 3 secular problem and applications. *Physics of Atomic Nuclei*, **2005**, 68, 1916-1921	0.4	
22	New Geometrical Applications of the Elliptic Integrals: The Mylar Balloon. *Journal of Nonlinear Mathematical Physics*, **2004**, 11, 55	0.9	8
21	The Mylar Balloon Revisited. *American Mathematical Monthly*, **2003**, 110, 761	0.3	9
20	The Mylar Balloon Revisited. *American Mathematical Monthly*, **2003**, 110, 761-784	0.3	22
19	Quantization on curved surfaces. *International Journal of Quantum Chemistry*, **2002**, 89, 248-254	2.1	2
18	New solutions of the shape equation. *European Physical Journal B*, **2002**, 29, 327-330	1.2	12
17	Reduction in stages and complete quantization of the MIC-Kepler problem. *Journal of Physics A*, **1999**, 32, 3779-3791		10
16	Saxon-Hutner theorem via matrix exponential. *Europhysics Letters*, **1997**, 37, 159-164	1.6	1
15	The matrizant and Saxon - Hutner theorem. *Journal of Physics A*, **1997**, 30, 1689-1694		
14	Geometry of the Saxon-Hutner theorem. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1997**, 230, 245-252	2.3	1

13	Kirkwood's formula revisited. *Europhysics Letters*, **1996**, 33, 577-582	1.6	
12	On the Spectrum of the Geodesic Flow on Spheres **1994**, 87-92		
11	On Debye-Hückel's Theory. *Europhysics Letters*, **1993**, 24, 693-698	1.6	1
10	Quantization of the moment map of coupled harmonic oscillators. *Journal of Physics A*, **1993**, 26, 7115-7123		1
9	Geometric quantization of the five-dimensional Kepler problem. *Foundations of Physics*, **1991**, 21, 871-888	2.2	7
8	An extension of the Saxon-Hutner theorem in the relativistic domain. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1989**, 137, 313-318	2.3	10
7	Reductions and quantization. *International Journal of Theoretical Physics*, **1989**, 28, 1255-1267	1.1	2
6	Generalization of the Saxon-Hutner Theorem in the Relativistic Domain. *Physica Status Solidi (B): Basic Research*, **1988**, 145, K115-K119	1.3	6
5	Geometric quantization of the Kepler problem with a magnetic charge **1988**, 275-281		
4	Scattering of charged particles off dyons. *Journal of Physics A*, **1988**, 21, L1-L4		6
3	Geometric quantisation of the MIC-Kepler problem. *Journal of Physics A*, **1987**, 20, 5865-5871		31
2	Geometric quantization of the multidimensional Kepler problem. *Journal of Geometry and Physics*, **1985**, 2, 17-24	1.2	27
1	Method for computing the characteristic polynomial. *International Journal of Quantum Chemistry*, **1980**, 18, 339-341	2.1	6