

Vasyl Kovalchuk

List of Publications by Year in descending order

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Version: 2024-02-01

22
papers

130
citations

1307543

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1281846

11
g-index

27
all docs

27
docs citations

27
times ranked

19
citing authors

#	ARTICLE	IF	CITATIONS
1	Klein-Gordon-Dirac equation: Physical justification and quantization attempts. Reports on Mathematical Physics, 2002, 49, 249-257.	0.8	21
2	Affine symmetry in mechanics of collective and internal modes Part I. classical models. Reports on Mathematical Physics, 2004, 54, 373-427.	0.8	16
3	Affine symmetry in mechanics of collective and internal modes Part II. Quantum models. Reports on Mathematical Physics, 2005, 55, 1-46.	0.8	15
4	Invariant geodetic problems on the affine group and related hamiltonian systems. Reports on Mathematical Physics, 2003, 51, 371-379.	0.8	10
5	Classical and Quantized Affine Physics: A Step towards it. Journal of Nonlinear Mathematical Physics, 2004, 11, 157.	1.3	9
6	Mechanics of systems of affine bodies. Geometric foundations and applications in dynamics of structured media. Mathematical Methods in the Applied Sciences, 2011, 34, 1512-1540.	2.3	9
7	Schrödinger and related equations as hamiltonian systems, manifolds of second-order tensors and new ideas of nonlinearity in quantum mechanics. Reports on Mathematical Physics, 2010, 65, 29-76.	0.8	8
8	Green function for Klein-Gordon-Dirac equation. Journal of Nonlinear Mathematical Physics, 2004, 11, 72.	1.3	7
9	Classical motions of infinitesimal rotators on Mylar balloons. Mathematical Methods in the Applied Sciences, 2020, 43, 9874-9887.	2.3	5
10	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.	0.3	5
11	Constraints and symmetry in mechanics of affine motion. Journal of Geometry and Physics, 2014, 78, 59-79.	1.4	3
12	Mechanics of affine bodies. Towards affine dynamical symmetry. Journal of Mathematical Analysis and Applications, 2017, 446, 493-520.	1.0	3
13	Mechanics of infinitesimal gyroscopes on Mylar balloons and their action-angle analysis. Mathematical Methods in the Applied Sciences, 2020, 43, 3040-3051.	2.3	3
14	Essential nonlinearity implied by symmetry group. Problems of affine invariance in mechanics and physics. Discrete and Continuous Dynamical Systems - Series B, 2012, 17, 699-733.	0.9	3
15	Mechanics of incompressible test bodies moving on spheres. Mathematical Methods in the Applied Sciences, 0, , .	2.3	3
16	Mechanics of incompressible test bodies moving in Riemannian spaces. Mathematical Methods in the Applied Sciences, 2020, 43, 9790-9804.	2.3	2
17	Hamiltonian Systems Inspired by the Schrödinger Equation. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 2008, , .	0.5	2
18	Generalized Weyl-Wigner-Moyal-Ville Formalism and Topological Groups. Mathematical Methods in the Applied Sciences, 2012, 35, 17-42.	2.3	1

#	ARTICLE	IF	CITATIONS
19	Parametric representation of wave propagation in nonuniform media (both in transmission and stop) Tj,ETQq1 1 0.784314	2.3	1
20	Space-time as a structured relativistic continuum. <i>Mathematical Methods in the Applied Sciences</i> , 2018, 41, 5404-5422.	2.3	1
21	On Classical Dynamics of Affinely-Rigid Bodies Subject to the Kirchhoff-Love Constraints. <i>Symmetry, Integrability and Geometry: Methods and Applications (SIGMA)</i> , 2010, , .	0.5	1
22	Quantized mechanics of affinely rigid bodies. <i>Mathematical Methods in the Applied Sciences</i> , 2017, 40, 6900-6918.	2.3	0