

Vasyl Kovalchuk

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.

19
papers

96
citations

6
h-index

9
g-index

27
ext. papers

112
ext. citations

1.5
avg, IF

2.05
L-index

#	Paper	IF	Citations
19	Affine symmetry in mechanics of collective and internal modes Part I. classical models. <i>Reports on Mathematical Physics</i> , 2004 , 54, 373-427	0.8	16
18	Affine symmetry in mechanics of collective and internal modes Part II. Quantum models. <i>Reports on Mathematical Physics</i> , 2005 , 55, 1-46	0.8	15
17	Klein-Gordon-Dirac equation: Physical justification and quantization attempts. <i>Reports on Mathematical Physics</i> , 2002 , 49, 249-257	0.8	12
16	Mechanics of systems of affine bodies. Geometric foundations and applications in dynamics of structured media. <i>Mathematical Methods in the Applied Sciences</i> , 2011 , 34, 1512-1540	2.3	9
15	Classical and Quantized Affine Physics: A Step towards it. <i>Journal of Nonlinear Mathematical Physics</i> , 2004 , 11, 157	0.9	9
14	Invariant geodetic problems on the affine group and related hamiltonian systems. <i>Reports on Mathematical Physics</i> , 2003 , 51, 371-379	0.8	9
13	Green function for Klein-Gordon-Dirac equation. <i>Journal of Nonlinear Mathematical Physics</i> , 2004 , 11, 72	0.9	6
12	Schrödinger and related equations as hamiltonian systems, manifolds of second-order tensors and new ideas of nonlinearity in quantum mechanics. <i>Reports on Mathematical Physics</i> , 2010 , 65, 29-76	0.8	4
11	Constraints and symmetry in mechanics of affine motion. <i>Journal of Geometry and Physics</i> , 2014 , 78, 59-70	2.2	3
10	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
9	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
8	Mechanics of affine bodies. Towards affine dynamical symmetry. <i>Journal of Mathematical Analysis and Applications</i> , 2017 , 446, 493-520	1.1	2
7	Essential nonlinearity implied by symmetry group. Problems of affine invariance in mechanics and physics. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2012 , 17, 699-733	1.3	2
6	Space-time as a structured relativistic continuum. <i>Mathematical Methods in the Applied Sciences</i> , 2018 , 41, 5404-5422	2.3	1
5	Generalized Weyl-Wigner-Moyal-Ville Formalism and Topological Groups. <i>Mathematical Methods in the Applied Sciences</i> , 2012 , 35, 17-42	2.3	1
4	Classical motions of infinitesimal rotators on Mylar balloons. <i>Mathematical Methods in the Applied Sciences</i> , 2020 , 43, 9874-9887	2.3	0
3	Mechanics of incompressible test bodies moving in Riemannian spaces. <i>Mathematical Methods in the Applied Sciences</i> , 2020 , 43, 9790-9804	2.3	0

- 2 Quantized mechanics of affinely rigid bodies. *Mathematical Methods in the Applied Sciences*, **2017**, 40, 6900-6918 2.3
- 1 Parametric representation of wave propagation in non-uniform media (both in transmission and stop bands). *Mathematical Methods in the Applied Sciences*, **2013**, 36, 1350-1362 2.3