

Konstantin Koshel

List of Publications by Year in descending order

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64
papers

680
citations

516561

16
h-index

610775

24
g-index

68
all docs

68
docs citations

68
times ranked

153
citing authors

#	ARTICLE	IF	CITATIONS
1	Chaotic advection in the ocean. <i>Physics-Uspexhi</i> , 2006, 49, 1151-1178.	0.8	92
2	Chaotic advection and nonlinear resonances in an oceanic flow above submerged obstacle. <i>Fluid Dynamics Research</i> , 2008, 40, 695-736.	0.6	37
3	Some specific features of chaotization of the pulsating barotropic flow over elliptic and axisymmetric sea-mounts. <i>Physics of Fluids</i> , 2004, 16, 3173-3190.	1.6	31
4	Determination of the optimal excitation frequency range in background flows. <i>Chaos</i> , 2008, 18, 013107.	1.0	27
5	Simple example of the development of cluster structure of a passive tracer field in random flows. <i>Physics-Uspexhi</i> , 2000, 43, 717-723.	0.8	26
6	Ellipsoidal vortex in a nonuniform flow: Dynamics and chaotic advections. <i>Journal of Marine Research</i> , 2011, 69, 435-461.	0.3	25
7	Diffusion-affected passive scalar transport in an ellipsoidal vortex in a shear flow. <i>Nonlinear Processes in Geophysics</i> , 2013, 20, 437-444.	0.6	22
8	Estimating the size of the regular region of a topographically trapped vortex. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2011, 105, 536-551.	0.4	21
9	Baroclinic multipole evolution in shear and strain. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2011, 105, 506-535.	0.4	21
10	Three-vortex quasi-geostrophic dynamics in a two-layer fluid. Part 1. Analysis of relative and absolute motions. <i>Journal of Fluid Mechanics</i> , 2013, 717, 232-254.	1.4	21
11	The life cycle of submesoscale eddies generated by topographic interactions. <i>Ocean Science</i> , 2019, 15, 1531-1543.	1.3	21
12	Background current concept and chaotic advection in an oceanic vortex flow. <i>Theoretical and Computational Fluid Dynamics</i> , 2010, 24, 59-64.	0.9	20
13	Passive scalar advection in the vicinity of two point vortices in a deformation flow. <i>European Journal of Mechanics, B/Fluids</i> , 2012, 34, 121-130.	1.2	20
14	Interaction of a monopole vortex with an isolated topographic feature in a three-layer geophysical flow. <i>Nonlinear Processes in Geophysics</i> , 2013, 20, 107-119.	0.6	20
15	Three-vortex quasi-geostrophic dynamics in a two-layer fluid. Part 2. Regular and chaotic advection around the perturbed steady states. <i>Journal of Fluid Mechanics</i> , 2013, 717, 255-280.	1.4	19
16	Chaotic transport and mixing of a passive admixture by vortex flows behind obstacles. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2010, 46, 184-191.	0.2	16
17	Parametric resonance with a point-vortex pair in a nonstationary deformation flow. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012, 376, 744-747.	0.9	16
18	Dynamics of a vortex pair interacting with a fixed point vortex. <i>Europhysics Letters</i> , 2013, 102, 44004.	0.7	15

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19	The effects of chaotic advection in a three-layer ocean model. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2011, 47, 241-251.	0.2	14
20	Entrapping of a vortex pair interacting with a fixed point vortex revisited. I. Point vortices. <i>Physics of Fluids</i> , 2018, 30, .	1.6	14
21	Effect of the vertical component of diffusion on passive scalar transport in an isolated vortex model. <i>Physical Review E</i> , 2015, 92, 053021.	0.8	13
22	Determining the optimal frequency of perturbation in the problem of chaotic transport of particles. <i>Doklady Physics</i> , 2006, 51, 219-222.	0.2	12
23	Vortex Interactions Subjected to Deformation Flows: A Review. <i>Fluids</i> , 2019, 4, 14.	0.8	12
24	Chaotic advection induced by a topographic vortex in baroclinic ocean. <i>Doklady Earth Sciences</i> , 2006, 407, 455-459.	0.2	9
25	Parametric resonance in the dynamics of an elliptic vortex in a periodically strained environment. <i>Nonlinear Processes in Geophysics</i> , 2017, 24, 1-8.	0.6	9
26	Resonance phenomena in a two-layer two-vortex shear flow. <i>Chaos</i> , 2016, 26, 113116.	1.0	8
27	Entrapping of a vortex pair interacting with a fixed point vortex revisited. II. Finite size vortices and the effect of deformation. <i>Physics of Fluids</i> , 2018, 30, 096604.	1.6	8
28	Boundary Effect on the Mixing and Transport of Passive Impurities in a Nonstationary Flow. <i>Technical Physics Letters</i> , 2005, 31, 135.	0.2	7
29	Evaluating the stochastic layer thickness in a two-layer topographic vortex model. <i>Technical Physics Letters</i> , 2008, 34, 531-534.	0.2	7
30	Global chaotization of fluid particle trajectories in a sheared two-layer two-vortex flow. <i>Chaos</i> , 2015, 25, 103108.	1.0	7
31	Clustering of floating tracers in weakly divergent velocity fields. <i>Physical Review E</i> , 2019, 100, 063108.	0.8	7
32	Ventilation of a trapped topographic eddy by a captured free eddy. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2011, 47, 780-791.	0.2	6
33	N -symmetric interaction of N hetons. I. Analysis of the case $N = 2$. <i>Physics of Fluids</i> , 2020, 32, .	1.6	6
34	Parametric instability of a many point-vortex system in a multi-layer flow under linear deformation. <i>Regular and Chaotic Dynamics</i> , 2016, 21, 254-266.	0.3	5
35	Interaction of an along-shore propagating vortex with a vortex enclosed in a circular bay. <i>Physics of Fluids</i> , 2018, 30, 016602.	1.6	5
36	Clustering of Floating Tracer Due to Mesoscale Vortex and Submesoscale Fields. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086504.	1.5	5

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37	Floating tracer clustering in divergent random flows modulated by an unsteady mesoscale ocean field. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2020, 114, 690-714.	0.4	5
38	Generalized Form of the Invariant Imbedding Method and Its Application to the Study of Back-Scattering in Shallow-Water Acoustics. <i>Journal of Marine Science and Engineering</i> , 2021, 9, 1033.	1.2	5
39	Influence of layer and anisotropic fluctuations of the refractive index on the beyond-the-horizon SHF propagation in the troposphere over the sea when there is an evaporation duct. <i>Waves in Random and Complex Media</i> , 1993, 3, 25-38.	1.5	4
40	Some features of chaotization of a pulsating barotropic flow over a seamount with elliptic cross-section. <i>Russian Journal of Numerical Analysis and Mathematical Modelling</i> , 2003, 18, .	0.2	4
41	Two-point-vortex evolution in an oscillatory shear flow with rotation. <i>Europhysics Letters</i> , 2014, 108, 24002.	0.7	4
42	Steady and perturbed motion of a point vortex along a boundary with a circular cavity. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 896-902.	0.9	4
43	Impact of diffusion on surface clustering in random hydrodynamic flows. <i>Physical Review E</i> , 2017, 95, 013109.	0.8	4
44	Title is missing!. <i>Regular and Chaotic Dynamics</i> , 2004, 9, 439.	0.3	4
45	The embedding method and differential run equations for the inverse scattering problem in a layered medium. <i>Radio Science</i> , 1995, 30, 1689-1698.	0.8	3
46	Comments on "Peristaltic flow of a Williamson fluid in an asymmetric channel"(Commun. Nonlinear Sci. Numer. Simul., 2017, 483-484.	1.7	3
47	A modification of the invariant imbedding method for a singular boundary value problem. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2014, 19, 459-470.	1.7	3
48	Toroidal vortices over isolated topography in geophysical flows. <i>Fluid Dynamics Research</i> , 2014, 46, 031405.	0.6	3
49	Local parametric instability near elliptic points in vortex flows under shear deformation. <i>Chaos</i> , 2016, 26, 083111.	1.0	3
50	Vortex dynamics of a fluid near a boundary with a circular cavity. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2014, 50, 420-425.	0.2	2
51	Anomalous sea surface structures as an object of statistical topography. <i>Physical Review E</i> , 2015, 91, 063003.	0.8	2
52	Advection of passive scalars induced by a bay-trapped nonstationary vortex. <i>Ocean Dynamics</i> , 2018, 68, 411-422.	0.9	2
53	Chaotic Advection and Nonlinear Resonances in a Periodic Flow above Submerged Obstacle. , 2008, , 415-423.		1
54	<title>Application of invariant imbedding method to simulate numerically beyond-the-horizon propagation of SHF over the sea</title>. , 1992, , .		0

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55	<title>Spatial structure of radar sea return: influence of refraction</title>. , 1992, 1688, 704.		0
56	<title>Influence of layer and anisotropic fluctuations of the refractive index on the beyond-the-horizon SHF propagation in the troposphere over the sea when there is an evaporation duct</title>. , 1993, 1968, 784.		0
57	Time-pulse propagation and inverse problem solution for layered medium. , 1994, 2222, 759.		0
58	<title>Rough-surface scattering at low grazing angles</title>. , 1994, , .		0
59	Various regimes of motion of a spherical cavity at a negative external pressure. Doklady Physics, 2003, 48, 649-653.	0.2	0
60	Estimation of Optimal for Chaotic Transport Frequency of Non-Stationary Flow Oscillation. , 2008, , 393-402.		0
61	Vortex tori above bottom perturbations in a rotating fluid. Doklady Physics, 2013, 58, 186-190.	0.2	0
62	Statistical structuring theory in parametrically excitable dynamical systems with a Gaussian pump. Theoretical and Mathematical Physics(Russian Federation), 2016, 186, 411-429.	0.3	0
63	THE STUDY OF ACOUSTIC MODES BACK-SCATTERING BY BOTTOM RELIEF INHOMOGENEITIES USING THE INVARIANT IMBEDDING METHOD. Podvodnye Issledovaniia I Robototekhnika, 2021, , 76-81.	0.1	0
64	Properties of chaotic advection in a 2-layer model of vortex flow. , 2006, , .		0