

Gyorgy Karolyi

List of Publications by Year in descending order

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54
papers

1,221
citations

394421

19
h-index

361022

35
g-index

57
all docs

57
docs citations

57
times ranked

736
citing authors

#	ARTICLE	IF	CITATIONS
1	Chemical and biological activity in open flows: A dynamical system approach. <i>Physics Reports</i> , 2005, 413, 91-196.	25.6	183
2	Chaotic flow: The physics of species coexistence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 13661-13665.	7.1	117
3	Advection of Active Particles in Open Chaotic Flows. <i>Physical Review Letters</i> , 1998, 80, 500-503.	7.8	95
4	Chaotic advection, diffusion, and reactions in open flows. <i>Chaos</i> , 2000, 10, 89-98.	2.5	63
5	Rock-scissors-paper game in a chaotic flow: The effect of dispersion on the cyclic competition of microorganisms. <i>Journal of Theoretical Biology</i> , 2005, 236, 12-20.	1.7	58
6	Chemical or biological activity in open chaotic flows. <i>Physical Review E</i> , 1999, 59, 5468-5481.	2.1	51
7	Spatial models of prebiotic evolution: soup before pizza?. <i>Origins of Life and Evolution of Biospheres</i> , 2003, 33, 319-355.	1.9	50
8	Chaotic tracer scattering and fractal basin boundaries in a blinking vortex-sink system. <i>Physics Reports</i> , 1997, 290, 125-147.	25.6	48
9	Wada dye boundaries in open hydrodynamical flows. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1997, 239, 235-243.	2.6	43
10	Competing populations in flows with chaotic mixing. <i>Theoretical Population Biology</i> , 2003, 63, 77-90.	1.1	39
11	A model for resolving the plankton paradox: coexistence in open flows. <i>Freshwater Biology</i> , 2000, 45, 123-132.	2.4	37
12	Dynamics of Finite-Size Particles in Chaotic Fluid Flows. <i>Understanding Complex Systems</i> , 2010, , 51-87.	0.6	37
13	Chaotic advection in blood flow. <i>Physical Review E</i> , 2009, 80, 016213.	2.1	32
14	Doubly Transient Chaos: Generic Form of Chaos in Autonomous Dissipative Systems. <i>Physical Review Letters</i> , 2013, 111, 194101.	7.8	31
15	A chaotically driven model climate: extreme events and snapshot attractors. <i>Nonlinear Processes in Geophysics</i> , 2011, 18, 573-580.	1.3	29
16	Drifting Impact Oscillator With a New Model of the Progression Phase. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012, 79, .	2.2	23
17	Reactive Particles in Random Flows. <i>Physical Review Letters</i> , 2004, 92, 174101.	7.8	22
18	Chemical Transients in Closed Chaotic Flows: The Role of Effective Dimensions. <i>Physical Review Letters</i> , 2005, 95, 264501.	7.8	21

#	ARTICLE	IF	CITATIONS
19	Metabolic network dynamics in open chaotic flow. <i>Chaos</i> , 2002, 12, 460-469.	2.5	19
20	Fractal snapshot components in chaos induced by strong noise. <i>Physical Review E</i> , 2011, 83, 046201.	2.1	19
21	Fractal structures in stenoses and aneurysms in blood vessels. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 5605-5617.	3.4	18
22	Driving a conceptual model climate by different processes: Snapshot attractors and extreme events. <i>Physical Review E</i> , 2013, 87, 022822.	2.1	16
23	Fractality, chaos, and reactions in imperfectly mixed open hydrodynamical flows. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1999, 274, 120-131.	2.6	13
24	Symbolic dynamics of infinite depth: finding global invariants for BVPs. <i>Physica D: Nonlinear Phenomena</i> , 1999, 134, 316-336.	2.8	12
25	Growth induced curve dynamics for filamentary micro-organisms. <i>Journal of Mathematical Biology</i> , 2005, 51, 355-366.	1.9	12
26	Fly-wheel model exhibits the hither and thither motion of a bouncing ball. <i>International Journal of Non-Linear Mechanics</i> , 2009, 44, 905-912.	2.6	12
27	Emerging fractal patterns in a real 3D cerebral aneurysm. <i>Journal of Theoretical Biology</i> , 2015, 368, 95-101.	1.7	12
28	Conservative spatial chaos of buckled elastic linkages. <i>Chaos</i> , 2006, 16, 033111.	2.5	11
29	Effective dimensions and chemical reactions in fluid flows. <i>Physical Review E</i> , 2007, 76, 046315.	2.1	11
30	Are the fractal skeletons the explanation for the narrowing of arteries due to cell trapping in a disturbed blood flow?. <i>Computers in Biology and Medicine</i> , 2012, 42, 276-281.	7.0	11
31	Discrete and nonlocal models of Engesser and Haringx elastica. <i>International Journal of Mechanical Sciences</i> , 2017, 130, 571-585.	6.7	11
32	Fractal scaling of microbial colonies affects growth. <i>Physical Review E</i> , 2005, 71, 031915.	2.1	9
33	Onset of chaotic advection in open flows. <i>Physical Review E</i> , 2008, 78, 016317.	2.1	8
34	Finite-size Lyapunov exponents: a new tool for lake dynamics. <i>Proceedings of the Institution of Civil Engineers: Engineering and Computational Mechanics</i> , 2010, 163, 251-259.	0.4	7
35	Coexistence of inertial competitors in chaotic flows. <i>Chaos</i> , 2006, 16, 043110.	2.5	6
36	SPATIALLY CHAOTIC BIFURCATIONS OF AN ELASTIC WEB OF LINKS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2010, 20, 4011-4028.	1.7	6

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37	New features of doubly transient chaos: complexity of decay. Journal of Physics Complexity, 2021, 2, 035001.	2.2	6
38	On the impact of a rigid plastic missile into rigid or elastic target. International Journal of Non-Linear Mechanics, 2017, 91, 1-7.	2.6	5
39	Climate change in mechanical systems: the snapshot view of parallel dynamical evolutions. Nonlinear Dynamics, 2021, 106, 2781-2805.	5.2	5
40	Climate change in a conceptual atmosphere phytoplankton model. Earth System Dynamics, 2020, 11, 603-615.	7.1	4
41	Chaotic advection and fractality: applications in oceanography. , 2007, , .		2
42	Unrevealed part of myosin's powerstroke accounts for high efficiency of muscle contraction. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 2325-2333.	2.4	2
43	Overdamped mechanical model of myosin II. Periodica Polytechnica: Civil Engineering, 2013, 57, 11.	0.6	1
44	Stress-free layers in photoinduced deformations of photoelastomer beams. International Journal of Non-Linear Mechanics, 2015, 70, 126-133.	2.6	1
45	Local Effects of Impact into Concrete Structure. Periodica Polytechnica: Civil Engineering, 2016, 60, 573-582.	0.6	1
46	Soft impact of an elongated elasto-plastic missile. International Journal of Mechanical Sciences, 2021, 212, 106804.	6.7	1
47	Spatial and temporal separation in overdamped systems. Periodica Polytechnica: Civil Engineering, 2010, 54, 89.	0.6	1
48	Chaos and nonlinear dynamics: Advances and perspectives. European Physical Journal: Special Topics, 2008, 165, 1-4.	2.6	0
49	Fractals and Chaos in the Hemodynamics of Intracranial Aneurysms. Springer Series in Computational Neuroscience, 2016, , 263-277.	0.3	0
50	Betonszerkezetek károsodása a földbe csapódás hatására I. rész. Haditechnika, 2021, 55, 65-70.	0.0	0
51	Reactions in chaotic flows. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2009, , 307-322.	0.6	0
52	Internal Lever Arm Model for Myosin II. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2011, , 155-163.	0.2	0
53	Parametric study for aircraft impact. , 2014, , .		0
54	Betonszerkezetek károsodása a földbe csapódás hatására. Haditechnika, 2021, 55, 56-59.	0.0	0