Marat Akhmet

List of Publications by Year
in descending order

122 papers	2,204 citations	201385 27 h-index	276539 41 g-index
131 all docs	131 docs citations	131 times ranked	459 citing authors

#	ARTICLE	IF	CITATIONS
1	Principles of Discontinuous Dynamical Systems. , 2010, , .		155
2	Integral manifolds of differential equations with piecewise constant argument of generalized type. Nonlinear Analysis: Theory, Methods & Applications, 2007, 66, 367-383.	0.6	83
3	Nonlinear Hybrid Continuous/Discrete-Time Models. Atlantis Studies in Mathematics for Engineering and Science, 2011, , .	0.1	78
4	An impulsive ratio-dependent predatorâ€"prey system with diffusion. Nonlinear Analysis: Real World Applications, 2006, 7, 1255-1267.	0.9	76
5	Stability of differential equations with piecewise constant arguments of generalized type. Nonlinear Analysis: Theory, Methods & Applications, 2008, 68, 794-803.	0.6	76
6	On the reduction principle for differential equations with piecewise constant argument of generalized type. Journal of Mathematical Analysis and Applications, 2007, 336, 646-663.	0.5	73
7	On the general problem of stability for impulsive differential equations. Journal of Mathematical Analysis and Applications, 2003, 288, 182-196.	0.5	69
8	Stability analysis of recurrent neural networks with piecewise constant argument of generalized type. Neural Networks, 2010, 23, 805-811.	3.3	68
9	Stability in cellular neural networks with a piecewise constant argument. Journal of Computational and Applied Mathematics, 2010, 233, 2365-2373.	1.1	61
10	Liâ€"Yorke chaos in the system with impacts. Journal of Mathematical Analysis and Applications, 2009, 351, 804-810.	0.5	59
11	Impulsive Hopfield-type neural network system with piecewise constant argument. Nonlinear Analysis: Real World Applications, 2010, 11, 2584-2593.	0.9	57
12	Devaneyâ€™s chaos of a relay system. Communications in Nonlinear Science and Numerical Simulation, 2009, 14, 1486-1493.	1.7	53
13	Perturbations and Hopf bifurcation of the planar discontinuous dynamical system. Nonlinear Analysis: Theory, Methods & Applications, 2005, 60, 163-178.	0.6	52
14	Chaotic period-doubling and OGY control for the forced Duffing equation. Communications in Nonlinear Science and Numerical Simulation, 2012, 17, 1929-1946.	1.7	50
15	Replication of chaos. Communications in Nonlinear Science and Numerical Simulation, 2013, 18, 2626-2666.	1.7	47
16	Unpredictable points and chaos. Communications in Nonlinear Science and Numerical Simulation, 2016, 40, 1-5.	1.7	44
17	The differential equations on time scales through impulsive differential equations. Nonlinear Analysis: Theory, Methods & Applications, 2006, 65, 2043-2060.	0.6	41
18	Lyapunov-Razumikhin method for differential equations with piecewise constant argument. Discrete and Continuous Dynamical Systems, 2009, 25, 457-466.	0.5	41

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19	Poincaré chaos and unpredictable functions. Communications in Nonlinear Science and Numerical Simulation, 2017, 48, 85-94.	1.7	39
20	Perron's theorem for linear impulsive differential equations with distributed delay. Journal of Computational and Applied Mathematics, 2006, 193, 204-218.	1.1	35
21	Almost periodic solutions of differential equations with piecewise constant argument of generalized type. Nonlinear Analysis: Hybrid Systems, 2008, 2, 456-467.	2.1	34
22	DYNAMICAL SYNTHESIS OF QUASI-MINIMAL SETS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2009, 19, 2423-2427.	0.7	33
23	Differential equations on variable time scales. Nonlinear Analysis: Theory, Methods & Applications, 2009, 70, 1175-1192.	0.6	31
24	Non-autonomous equations with unpredictable solutions. Communications in Nonlinear Science and Numerical Simulation, 2018, 59, 657-670.	1.7	31
25	Shunting inhibitory cellular neural networks with chaotic external inputs. Chaos, 2013, 23, 023112.	1.0	30
26	Entrainment by Chaos. Journal of Nonlinear Science, 2014, 24, 411-439.	1.0	28
27	Generation of cyclic/toroidal chaos by Hopfield neural networks. Neurocomputing, 2014, 145, 230-239.	3.5	28
28	Asymptotic behavior of solutions of differential equations with piecewise constant arguments. Applied Mathematics Letters, 2008, 21, 951-956.	1.5	27
29	Neural Networks with Discontinuous/Impact Activations. Advances in Dynamics, Patterns, Cognition, 2014, , .	0.2	27
30	Chaos in economic models with exogenous shocks. Journal of Economic Behavior and Organization, 2014, 106, 95-108.	1.0	26
31	Homoclinic and Heteroclinic Motions in Economic Models with Exogenous Shocks. Applied Mathematics and Nonlinear Sciences, 2016, 1, 1-10.	0.9	26
32	Replication of Chaos in Neural Networks, Economics and Physics. Nonlinear Physical Science, 2016, , .	0.2	25
33	Bifurcation of a non-smooth planar limit cycle from a vertex. Nonlinear Analysis: Theory, Methods & Applications, 2009, 71, e2723-e2733.	0.6	24
34	Differential equations with state-dependent piecewise constant argument. Nonlinear Analysis: Theory, Methods & Applications, 2010, 72, 4200-4210.	0.6	24
35	Method of Lyapunov functions for differential equations with piecewise constant delay. Journal of Computational and Applied Mathematics, 2011, 235, 4554-4560.	1.1	23
36	Existence of unpredictable solutions and chaos. Turkish Journal of Mathematics, 2017, 41, 254-266.	0.3	23

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37	The principles of B-smooth discontinuous flows. Computers and Mathematics With Applications, 2005, 49, 981-995.	1.4	20
38	On periodic solutions of differential equations with piecewise constant argument. Computers and Mathematics With Applications, 2008, 56, 2034-2042.	1.4	19
39	Shunting inhibitory cellular neural networks with strongly unpredictable oscillations. Communications in Nonlinear Science and Numerical Simulation, 2020, 89, 105287.	1.7	19
40	Homoclinical structure of the chaotic attractor. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 819-822.	1.7	18
41	Periodic solutions of the hybrid system with small parameter. Nonlinear Analysis: Hybrid Systems, 2008, 2, 532-543.	2.1	17
42	Global exponential stability of neural networks with non-smooth and impact activations. Neural Networks, 2012, 34, 18-27.	3.3	17
43	Asymptotic equivalence of differential equations and asymptotically almost periodic solutions. Nonlinear Analysis: Theory, Methods & Applications, 2007, 67, 1870-1877.	0.6	15
44	Quasilinear retarded differential equations with functional dependence on piecewise constant argument. Communications on Pure and Applied Analysis, 2013, 13, 929-947.	0.4	15
45	Attraction of Liâ€"Yorke chaos by retarded SICNNs. Neurocomputing, 2015, 147, 330-342.	3.5	15
46	Unpredictable Oscillations for Hopfield-Type Neural Networks with Delayed and Advanced Arguments. Mathematics, 2021, 9, 571.	1.1	15
47	SHADOWING AND DYNAMICAL SYNTHESIS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2009, 19, 3339-3346.	0.7	14
48	Unpredictable solutions of linear differential and discrete equations. Turkish Journal of Mathematics, 2019, 43, 2377-2389.	0.3	14
49	On the smoothness of solutions of impulsive autonomous systems. Nonlinear Analysis: Theory, Methods & Applications, 2005, 60, 311-324.	0.6	13
50	The complex dynamics of the cardiovascular system. Nonlinear Analysis: Theory, Methods & Applications, 2009, 71, e1922-e1931.	0.6	13
51	Li-Yorke chaos generation by SICNNs with chaotic/almost periodic postsynaptic currents. Neurocomputing, 2016, 173, 580-594.	3.5	13
52	Quasilinear differential equations with strongly unpredictable solutions. Carpathian Journal of Mathematics, 2020, 36, 341-349.	0.4	13
53	Control and optimal response problems for quasilinear impulsive integrodifferential equations. European Journal of Operational Research, 2006, 169, 1128-1147.	3.5	12
54	Almost Periodicity, Chaos, and Asymptotic Equivalence. Advances in Dynamics, Patterns, Cognition, 2020, , .	0.2	12

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55	Boundary value problems for higher order linear impulsive differential equations. Journal of Mathematical Analysis and Applications, 2006, 319, 139-156.	0.5	11
56	Chaotification of Impulsive Systems by Perturbations. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2014, 24, 1450078.	0.7	11
57	Modulo Periodic Poisson Stable Solutions of Quasilinear Differential Equations. Entropy, 2021, 23, 1535.	1.1	11
58	Existence and stability of almost-periodic solutions of quasi-linear differential equations with deviating argument. Applied Mathematics Letters, 2004, 17, 1177-1181.	1.5	10
59	Discontinuous dynamics with grazing points. Communications in Nonlinear Science and Numerical Simulation, 2016, 38, 218-242.	1.7	10
60	Domain-Structured Chaos in a Hopfield Neural Network. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1950205.	0.7	10
61	Inertial Neural Networks with Unpredictable Oscillations. Mathematics, 2020, 8, 1797.	1.1	10
62	Extension of Lorenz Unpredictability. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1550126.	0.7	9
63	Exponential stability of periodic solutions of recurrent neural networks with functional dependence on piecewise constant argument. Turkish Journal of Mathematics, 2018, 42, 272-292.	0.3	9
64	Unpredictable Solutions of Linear Impulsive Systems. Mathematics, 2020, 8, 1798.	1.1	9
65	Bifurcation of discontinuous limit cycles of the Van der Pol equation. Mathematics and Computers in Simulation, 2014, 95, 39-54.	2.4	8
66	Asymptotic behavior of linear impulsive integro-differential equations. Computers and Mathematics With Applications, 2008, 56, 1071-1081.	1.4	7
67	Strongly Unpredictable Oscillations of Hopfield-Type Neural Networks. Mathematics, 2020, 8, 1791.	1.1	7
68	Impulsive SICNNs with chaotic postsynaptic currents. Discrete and Continuous Dynamical Systems - Series B, 2016, 21, 1119-1148.	0.5	7
69	A prototype compartmental model of blood pressure distribution. Nonlinear Analysis: Real World Applications, 2010, 11, 1249-1257.	0.9	6
70	Self-synchronization of the integrate-and-fire pacemaker model with continuous couplings. Nonlinear Analysis: Hybrid Systems, 2012, 6, 730-740.	2.1	6
71	Extension of spatiotemporal chaos in glow discharge-semiconductor systems. Chaos, 2014, 24, 043127.	1.0	6
72	Liâ€"Yorke Chaos in Hybrid Systems on a Time Scale. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1540024.	0.7	6

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73	Almost periodic solutions of retarded SICNNs with functional response on piecewise constant argument. Neural Computing and Applications, 2016, 27, 2483-2495.	3.2	6
74	Almost Periodicity in Chaos. Discontinuity, Nonlinearity, and Complexity, 2018, 7, 15-29.	0.1	6
75	Dynamics of Shunting Inhibitory Cellular Neural Networks with Variable Two-Component Passive Decay Rates and Poisson Stable Inputs. Symmetry, 2022, 14, 1162.	1.1	6
76	Bifurcation of three-dimensional discontinuous cycles. Nonlinear Analysis: Theory, Methods & Applications, 2009, 71, e2090-e2102.	0.6	5
77	A Hopfield neural network with multi-compartmental activation. Neural Computing and Applications, 2018, 29, 815-822.	3.2	5
78	A singularly perturbed differential equation with piecewise constant argument of generalized type. Turkish Journal of Mathematics, 2018, 42, 1680-1685.	0.3	4
79	Generation of fractals as Duffing equation orbits. Chaos, 2019, 29, 053113.	1.0	4
80	Extension of sea surface temperature unpredictability. Ocean Dynamics, 2019, 69, 145-156.	0.9	4
81	Input-Output Mechanism of the Discrete Chaos Extension. Advances in Dynamics, Patterns, Cognition, 2016, , 203-233.	0.2	4
82	Periodic motions generated from non-autonomous grazing dynamics. Communications in Nonlinear Science and Numerical Simulation, 2017, 49, 48-62.	1.7	3
83	Chattering as a singular problem. Nonlinear Dynamics, 2017, 90, 2797-2812.	2.7	3
84	Nonautonomous Bifurcations in Nonlinear Impulsive Systems. Differential Equations and Dynamical Systems, 2020, 28, 177-190.	0.5	3
85	Persistence of Liâ€"Yorke chaos in systems with relay. Electronic Journal of Qualitative Theory of Differential Equations, 2017, , 1-18.	0.2	3
86	Abstract Similarity, Fractals, and Chaos. Advances in Dynamics, Patterns, Cognition, 2020, , 203-221.	0.2	3
87	Non-autonomous grazing phenomenon. Nonlinear Dynamics, 2017, 87, 1973-1984.	2.7	2
88	Perturbed Liâ€"Yorke homoclinic chaos. Electronic Journal of Qualitative Theory of Differential Equations, 2018, , 1-18.	0.2	2
89	Entrainment by Chaos. Nonlinear Physical Science, 2016, , 127-156.	0.2	2
90	Exogenous Versus Endogenous for Chaotic Business Cycles. Discontinuity, Nonlinearity, and Complexity, 2016, 5, 101-119.	0.1	2

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91	The Sturm-Liouville operator on the space of functions with discontinuity conditions. Computers and Mathematics With Applications, 2006, 51, 889-896.	1.4	1
92	Period-doubling route to chaos in shunting inhibitory cellular neural networks. , 2013, , .		1
93	Chaos Generation in Continuous/Discrete-Time Models. Nonlinear Physical Science, 2016, , 183-264.	0.2	1
94	Chaos by Neural Networks. Nonlinear Physical Science, 2016, , 311-405.	0.2	1
95	Impulsive Differential Equations. Advances in Dynamics, Patterns, Cognition, 2014, , 67-83.	0.2	1
96	Equilibria of Neural Networks with Impact Activations and Piecewise Constant Argument. Advances in Dynamics, Patterns, Cognition, 2014, , 93-114.	0.2	1
97	Strongly Unpredictable Solutions. Advances in Dynamics, Patterns, Cognition, 2020, , 97-108.	0.2	1
98	A Novel Deterministic Chaos and Discrete Random Processes. , 2020, , .		1
99	Economic Models with Exogenous Continuous/Discrete Shocks. Nonlinear Physical Science, 2016, , 265-310.	0.2	0
100	Mapping Fatou-Julia Iterations. , 2018, , .		0
101	Discontinuous Almost Periodic Solutions. Advances in Dynamics, Patterns, Cognition, 2020, , 85-101.	0.2	0
102	Differential Equations with Functional Response on Piecewise Constant Argument. Advances in Dynamics, Patterns, Cognition, 2020, , 143-175.	0.2	0
103	SICNN with Chaotic/Almost Periodic Postsynaptic Currents. Advances in Dynamics, Patterns, Cognition, 2020, , 265-307.	0.2	0
104	Homoclinic Chaos and Almost Periodicity. Advances in Dynamics, Patterns, Cognition, 2020, , 243-263.	0.2	0
105	Generalities for Impulsive Systems. Advances in Dynamics, Patterns, Cognition, 2020, , 43-67.	0.2	0
106	Dynamics of a Recurrent Neural Network with Impulsive Effects and Piecewise Constant Argument. Lecture Notes on Data Engineering and Communications Technologies, 2021, , 540-552.	0.5	0
107	Abstract similarity, fractals and chaos. Discrete and Continuous Dynamical Systems - Series B, 2021, 26, 2479.	0.5	0
108	Chaotification of Impulsive Systems. Nonlinear Physical Science, 2016, , 157-181.	0.2	0

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109	Chaos Extension in Hyperbolic Systems. Nonlinear Physical Science, 2016, , 101-125.	0.2	0
110	The Prevalence of Weather Unpredictability. Nonlinear Physical Science, 2016, , 407-440.	0.2	0
111	Almost Periodicity in Chaos. Advances in Dynamics, Patterns, Cognition, 2020, , 223-242.	0.2	0
112	Almost Periodic Solutions of Retarded SICNN with Functional Response on Piecewise Constant Argument. Advances in Dynamics, Patterns, Cognition, 2020, , 177-200.	0.2	0
113	Bohr and Bochner Discontinuities. Advances in Dynamics, Patterns, Cognition, 2020, , 103-121.	0.2	0
114	Neural Networks with Poincare Chaos. , 2019, , .		0
115	Global Weather and Climate in the Light of El NiÃ±o-Southern Oscillation. Advances in Dynamics, Patterns, Cognition, 2020, , 139-172.	0.2	0
116	Unpredictability in Topological Dynamics. Advances in Dynamics, Patterns, Cognition, 2020, , 57-79.	0.2	0
117	The Unpredictable Point and PoincarÃ© Chaos. Advances in Dynamics, Patterns, Cognition, 2020, , 15-23.	0.2	0
118	Liâ€"Yorke Chaos in Hybrid Systems on a Time Scale. Advances in Dynamics, Patterns, Cognition, 2020, , 109-124.	0.2	0
119	Fractals: Dynamics in the Geometry. Advances in Dynamics, Patterns, Cognition, 2020, , 173-202.	0.2	0
120	Homoclinic and Heteroclinic Motions in Economic Models. Advances in Dynamics, Patterns, Cognition, 2020, , 125-137.	0.2	0
121	Unpredictable Solutions of Hyperbolic Linear Equations. Advances in Dynamics, Patterns, Cognition, 2020, , 81-95.	0.2	0
122	Unpredictability in Bebutov Dynamics. Advances in Dynamics, Patterns, Cognition, 2020, , 25-40.	0.2	0