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Education Information

Doctorate, Kiev Devlet Üniversitesi, Ukraine 1980 - 1984

Undergraduate, Aktöbe Devlet Pedagoji Enstitüsü, Kazakhstan 1974 - 1980

Research Areas

Health Sciences, Natural Sciences, Engineering and Technology

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 1998 - Continues

Courses

PARTIAL DIFFERENTIAL EQUATIONS, Postgraduate, 2020 - 2021

ORDINARY DIFFERENTIAL EQUATIONS II, Postgraduate, 2020 - 2021

INTRODUCTION TO CHAOTIC DYNAMICAL SYSTEMS, Postgraduate, 2020 - 2021

DYNAMICAL SYSTEMS , Undergraduate, 2019 - 2020

PH.D. THESIS, Doctorate, 2019 - 2020

ORDINARY DIFFERENTIAL EQUATIONS I, Postgraduate, 2018 - 2019

CALCULUS WITH ANALYTIC GEOMETRY, Undergraduate, 2017 - 2018

PARTIAL DIFFERENTIAL EQUATIONS, Undergraduate, 2016 - 2017

IMPULSIVE DIFFERENTIAL EQUATIONS, Postgraduate, 2007 - 2008

INTRODUCTION TO DELAY DIFFERENTIAL EQUATIONS, Doctorate, 2001 - 2002

Advising Theses

AKHMET M., Parçalı sabit argümanlı adi ve kısmi diferansiyel denklemlerin analizi, Doctorate, Z.ÖZKAN(Student), 2022

AKHMET M., Almost periodic solutions of recurrently structured impulsive neural networks, Doctorate, G.ERİM(Student),

2022

Akhmet M., Dynamics for chaos and fractals, Doctorate, E.Alejaily(Student), 2019

Akhmet M., Stability analysis of neural networks with piecewise constant argument, Doctorate, M.KARACAÖREN(Student), 2017

AKHMET M., Chattering and singular perturbation in discontinuous dynamics, Doctorate, S.ÇAĞ(Student), 2017

AKHMET M., Discontinuous dynamics with grazing points, Doctorate, A.KIVILCIM(Student), 2016

Akhmet M., Nonautonomous transcritical and pitchfork bifurcations in impulsive/hybrid systems, Doctorate, A.KASHKYNBAYEV(Student), 2016

AKHMET M., The input/output mechanism of chaos generation, Doctorate, M.ONUR(Student), 2013

AKHMET M., Neural networks with piecewise constant argument and impact activation, Doctorate, E.YILMAZ(Student), 2011

AKHMET M., Differential equations with discontinuities and population dynamics, Doctorate, D.ARUĞASLAN(Student), 2009

AKHMET M., Periodic solutions and stability of differential equations with piecewise constant argument of generalized type, Doctorate, C.BÜYÜKADALI(Student), 2009

AKHMET M., New classes of differential equations and bifurcation of discontinuous cycles, Doctorate, M.TURAN(Student), 2009

AKHMET M., Modelling functional dynamical systems by piecewise linear systems with delay, Postgraduate, M.KAHRAMAN(Student), 2007

AKHMET M., Extension of the logistic equation with piecewise constant arguments and population dynamics, Postgraduate, D.ALTINTAN(Student), 2006

AKHMET M., On principles of B-smooth discontinuous flows, Postgraduate, E.ÇİĞDEM(Student), 2004

AKHMET M., Periodic solutions and stability of linear impulsive delay differential equations, Doctorate, J.ALZABUT(Student), 2004

AKHMET M., Pseudo almost periodic solutions of linear difference systems, Postgraduate, A.ÇAKMAK(Student), 2003

AKHMET M., Boundary value problems for higher order linear impulsive differential equations, Doctorate, Ö.UĞUR(Student), 2003

ZAFER A., AKHMET M., Stability of the zero solution of impulsive differential equations by Lyapunov second method., Postgraduate, T.Yolcu(Student), 2002

AKHMET M., Integral manifolds of impulsive systems, Postgraduate, D.ÇELİK(Student), 2002

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Markovian noise-induced delta synchronization approach for Hindmarsh–Rose model**
AKHMET M., Başkan K., Yeşil C.
Chaos, Solitons and Fractals, vol.185, 2024 (SCI-Expanded)
- II. **Dynamics of Symmetrical Discontinuous Hopfield Neural Networks with Poisson Stable Rates, Synaptic Connections and Unpredictable Inputs**
AKHMET M., Nugayeva Z., Seilova R.
Symmetry, vol.16, no.6, 2024 (SCI-Expanded)
- III. **Cohen-Grossberg neural networks with unpredictable and Poisson stable dynamics**
AKHMET M., Tleubergenova M., Zhamanshin A.
Chaos, Solitons and Fractals, vol.178, 2024 (SCI-Expanded)
- IV. **Asymptotic solutions of differential equations with singular impulses**
Aviltay N., Akhmet M., Zhamanshin A.
Carpathian Journal of Mathematics, vol.40, no.3, pp.581-598, 2024 (SCI-Expanded)
- V. **Unpredictable solutions of compartmental quasilinear differential equations**
AKHMET M., Tleubergenova M., Zhamanshin A.
Carpathian Journal of Mathematics, vol.40, no.1, pp.1-13, 2024 (SCI-Expanded)
- VI. **Symmetrical Impulsive Inertial Neural Networks with Unpredictable and Poisson-Stable Oscillations**

- AKHMET M., Tleubergenova M., Seilova R., Nugayeva Z.
Symmetry, vol.15, no.10, 2023 (SCI-Expanded)
- VII. **Revealing Chaos Synchronization Below the Threshold in Coupled Mackey–Glass Systems**
AKHMET M., Başkan K., YEŞİL C.
Mathematics, vol.11, no.14, 2023 (SCI-Expanded)
- VIII. **Unpredictable and Poisson Stable Oscillations of Inertial Neural Networks with Generalized Piecewise Constant Argument**
AKHMET M., Tleubergenova M., Nugayeva Z.
Entropy, vol.25, no.4, 2023 (SCI-Expanded)
- IX. **Compartmental Unpredictable Functions**
AKHMET M., Tleubergenova M., Zhamanshin A.
Mathematics, vol.11, no.5, 2023 (SCI-Expanded)
- X. **Shunting Inhibitory Cellular Neural Networks with Compartmental Unpredictable Coefficients and Inputs**
AKHMET M., Tleubergenova M., Zhamanshin A.
MATHEMATICS, vol.11, no.6, 2023 (SCI-Expanded)
- XI. **Synchronization of chaos in semiconductor gas discharge model with local mean energy approximation**
AKHMET M., YEŞİL C., Başkan K.
Chaos, Solitons and Fractals, vol.167, 2023 (SCI-Expanded)
- XII. **Duffing equations with two-component Poisson stable coefficients**
Akhmet M., Tleubergenova M., Zhamanshin A.
Carpathian Journal of Mathematics, vol.39, no.2, pp.349-357, 2023 (SCI-Expanded)
- XIII. **Unpredictable solutions of quasilinear differential equations with generalized piecewise constant arguments of mixed type**
Tleubergenova M., Çinçin D. A., Nugayeva Z., AKHMET M.
Carpathian Journal of Mathematics, vol.39, no.1, pp.265-280, 2023 (SCI-Expanded)
- XIV. **A novel criterion for unpredictable motions**
FEN F., Fen M. O., AKHMET M.
FILOMAT, vol.37, no.18, pp.6151-6160, 2023 (SCI-Expanded)
- XV. **Dynamics of Hopfield-Type Neural Networks with Modulo Periodic Unpredictable Synaptic Connections, Rates and Inputs**
AKHMET M., Tleubergenova M., Zhamanshin A.
ENTROPY, vol.24, no.11, 2022 (SCI-Expanded)
- XVI. **Poisson Stability in Symmetrical Impulsive Shunting Inhibitory Cellular Neural Networks with Generalized Piecewise Constant Argument**
AKHMET M., Tleubergenova M., Seilova R., Nugayeva Z.
SYMMETRY-BASEL, vol.14, no.9, 2022 (SCI-Expanded)
- XVII. **Delta synchronization of Poincare chaos in gas discharge-semiconductor systems**
AKHMET M., Başkan K., YEŞİL C.
CHAOS, vol.32, no.8, 2022 (SCI-Expanded)
- XVIII. **Dynamics of Shunting Inhibitory Cellular Neural Networks with Variable Two-Component Passive Decay Rates and Poisson Stable Inputs**
AKHMET M., Tleubergenova M., Zhamanshin A.
Symmetry, vol.14, no.6, 2022 (SCI-Expanded)
- XIX. **Unpredictability in Markov chains**
AKHMET M.
CARPATHIAN JOURNAL OF MATHEMATICS, vol.38, no.1, pp.13-19, 2022 (SCI-Expanded)
- XX. **Modulo Periodic Poisson Stable Solutions of Quasilinear Differential Equations**
AKHMET M., Tleubergenova M., Zhamanshin A.
ENTROPY, vol.23, no.11, 2021 (SCI-Expanded)

- XXI. **ABSTRACT SIMILARITY, FRACTALS AND CHAOS**
AKHMET M., Alejaily E. M.
DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS-SERIES B, vol.26, no.5, pp.2479-2497, 2021 (SCI-Expanded)
- XXII. **Unpredictable Oscillations for Hopfield-Type Neural Networks with Delayed and Advanced Arguments**
AKHMET M., ARUĞASLAN ÇİNÇİN D., Tleubergenova M., Nugayeva Z.
MATHEMATICS, vol.9, no.5, 2021 (SCI-Expanded)
- XXIII. **Unpredictable Solutions of Linear Impulsive Systems**
AKHMET M., Tleubergenova M., Fen M. O., Nugayeva Z.
MATHEMATICS, vol.8, no.10, pp.1-16, 2020 (SCI-Expanded)
- XXIV. **Shunting inhibitory cellular neural networks with strongly unpredictable oscillations**
AKHMET M., Seilova R., Tleubergenova M., Zhamanshin A.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.89, 2020 (SCI-Expanded)
- XXV. **Strongly Unpredictable Oscillations of Hopfield-Type Neural Networks**
AKHMET M., Tleubergenova M., Nugayeva Z.
MATHEMATICS, vol.8, no.10, pp.1-14, 2020 (SCI-Expanded)
- XXVI. **Inertial Neural Networks with Unpredictable Oscillations**
AKHMET M., Tleubergenova M., Zhamanshin A.
MATHEMATICS, vol.8, no.10, pp.1-11, 2020 (SCI-Expanded)
- XXVII. **Quasilinear differential equations with strongly unpredictable solutions**
AKHMET M., Tleubergenova M., Zhamanshin A.
CARPATHIAN JOURNAL OF MATHEMATICS, vol.36, no.3, pp.341-349, 2020 (SCI-Expanded)
- XXVIII. **Domain-Structured Chaos in a Hopfield Neural Network**
AKHMET M., Alejaily E. M.
INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, vol.29, no.14, 2019 (SCI-Expanded)
- XXIX. **Generation of fractals as Duffing equation orbits**
AKHMET M., Fen M. O., Alejaily E. M.
CHAOS, vol.29, no.5, 2019 (SCI-Expanded)
- XXX. **Extension of sea surface temperature unpredictability**
AKHMET M., Fen M. O., Alejaily E. M.
OCEAN DYNAMICS, vol.69, no.2, pp.145-156, 2019 (SCI-Expanded)
- XXXI. **Unpredictable solutions of linear differential and discrete equations**
AKHMET M., Fen M. O., Tleubergenova M., Zhamanshin A.
TURKISH JOURNAL OF MATHEMATICS, vol.43, no.5, pp.2377-2389, 2019 (SCI-Expanded)
- XXXII. **POINCARÉ CHAOS FOR A HYPERBOLIC QUASILINEAR SYSTEM**
AKHMET M., Fen M. O., Tleubergenova M., Zhamanshin A.
MISKOLC MATHEMATICAL NOTES, vol.20, no.1, pp.33-44, 2019 (SCI-Expanded)
- XXXIII. **Non-autonomous equations with unpredictable solutions**
AKHMET M., Fen M. O.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.59, pp.657-670, 2018 (SCI-Expanded)
- XXXIV. **A Hopfield neural network with multi-compartmental activation**
AKHMET M., Karacaoren M.
NEURAL COMPUTING & APPLICATIONS, vol.29, no.10, pp.815-822, 2018 (SCI-Expanded)
- XXXV. **Perturbed Li-Yorke homoclinic chaos**
AKHMET M., Feckan M., Fen M. O., Kashkynbayev A.
ELECTRONIC JOURNAL OF QUALITATIVE THEORY OF DIFFERENTIAL EQUATIONS, no.75, pp.1-18, 2018 (SCI-Expanded)
- XXXVI. **Exponential stability of periodic solutions of recurrent neural networks with functional dependence on piecewise constant argument**
AKHMET M., ARUĞASLAN ÇİNÇİN D., Cengiz N.

- TURKISH JOURNAL OF MATHEMATICS, vol.42, no.1, pp.272-292, 2018 (SCI-Expanded)
- XXXVII. **A singularly perturbed differential equation with piecewise constant argument of generalized type**
AKHMET M., Dauylbayev M., Mirzakulova A.
TURKISH JOURNAL OF MATHEMATICS, vol.42, no.4, pp.1680-1685, 2018 (SCI-Expanded)
- XXXVIII. **Chattering as a singular problem**
AKHMET M., Cag S.
NONLINEAR DYNAMICS, vol.90, no.4, pp.2797-2812, 2017 (SCI-Expanded)
- XXXIX. **Periodic motions generated from non-autonomous grazing dynamics**
AKHMET M., Kivilcim A.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.49, pp.48-62, 2017 (SCI-Expanded)
- XL. **Poincare chaos and unpredictable functions**
AKHMET M., Fen M. O.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.48, pp.85-94, 2017 (SCI-Expanded)
- XLI. **VERTICAL AND HORIZONTAL GRAZING**
AKHMET M., Kivilcim A.
DYNAMIC SYSTEMS AND APPLICATIONS, vol.26, no.1, pp.131-145, 2017 (SCI-Expanded)
- XLII. **Non-autonomous grazing phenomenon**
AKHMET M., Kivilcim A.
NONLINEAR DYNAMICS, vol.87, no.3, pp.1973-1984, 2017 (SCI-Expanded)
- XLIII. **Nonautonomous Bifurcations in Bernoulli Differential Equations with Piecewise Constant Argument of Generalized Type**
AKHMET M., Kashkynbayev A.
BIFURCATION IN AUTONOMOUS AND NONAUTONOMOUS DIFFERENTIAL EQUATIONS WITH DISCONTINUITIES, pp.145-156, 2017 (SCI-Expanded)
- XLIV. **Bifurcation in Autonomous and Nonautonomous Differential Equations with Discontinuities Preface**
AKHMET M., Kashkynbayev A.
BIFURCATION IN AUTONOMOUS AND NONAUTONOMOUS DIFFERENTIAL EQUATIONS WITH DISCONTINUITIES, 2017 (SCI-Expanded)
- XLV. **Existence of unpredictable solutions and chaos**
AKHMET M., Fen M. O.
TURKISH JOURNAL OF MATHEMATICS, vol.41, no.2, pp.254-266, 2017 (SCI-Expanded)
- XLVI. **Nonautonomous Bifurcations in Nonsolvable Impulsive Systems**
AKHMET M., Kashkynbayev A.
BIFURCATION IN AUTONOMOUS AND NONAUTONOMOUS DIFFERENTIAL EQUATIONS WITH DISCONTINUITIES, pp.123-144, 2017 (SCI-Expanded)
- XLVII. **Bifurcation in Autonomous and Nonautonomous Differential Equations with Discontinuities Introduction**
AKHMET M., Kashkynbayev A.
BIFURCATION IN AUTONOMOUS AND NONAUTONOMOUS DIFFERENTIAL EQUATIONS WITH DISCONTINUITIES, pp.1-9, 2017 (SCI-Expanded)
- XLVIII. **Stability in non-autonomous periodic systems with grazing stationary impacts**
AKHMET M., Kivilcim A.
CARPATHIAN JOURNAL OF MATHEMATICS, vol.33, no.1, pp.1-8, 2017 (SCI-Expanded)
- XLIX. **Hopf Bifurcation in Impulsive Systems**
AKHMET M., Kashkynbayev A.
BIFURCATION IN AUTONOMOUS AND NONAUTONOMOUS DIFFERENTIAL EQUATIONS WITH DISCONTINUITIES, pp.11-63, 2017 (SCI-Expanded)
- L. **Nonautonomous Bifurcation in Impulsive Bernoulli Equations**
AKHMET M., Kashkynbayev A.

BIFURCATION IN AUTONOMOUS AND NONAUTONOMOUS DIFFERENTIAL EQUATIONS WITH DISCONTINUITIES, pp.97-122, 2017 (SCI-Expanded)

- LI. **Hopf Bifurcation in Filippov Systems**
AKHMET M., Kashkynbayev A.
BIFURCATION IN AUTONOMOUS AND NONAUTONOMOUS DIFFERENTIAL EQUATIONS WITH DISCONTINUITIES, pp.65-96, 2017 (SCI-Expanded)
- LII. **Persistence of Li-Yorke chaos in systems with relay**
AKHMET M., Fen M. O., Kashkynbayev A.
ELECTRONIC JOURNAL OF QUALITATIVE THEORY OF DIFFERENTIAL EQUATIONS, no.72, pp.1-18, 2017 (SCI-Expanded)
- LIII. **Almost periodic solutions of retarded SICNNs with functional response on piecewise constant argument**
AKHMET M., Fen M. O., Kirane M.
NEURAL COMPUTING & APPLICATIONS, vol.27, no.8, pp.2483-2495, 2016 (SCI-Expanded)
- LIV. **Unpredictable points and chaos**
AKHMET M., Fen M. O.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.40, pp.1-5, 2016 (SCI-Expanded)
- LV. **Discontinuous dynamics with grazing points**
AKHMET M., Kivilcim A.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.38, pp.218-242, 2016 (SCI-Expanded)
- LVI. **IMPULSIVE SICNNS WITH CHAOTIC POSTSYNAPTIC CURRENTS**
Fen M. O., AKHMET M.
DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS-SERIES B, vol.21, no.4, pp.1119-1148, 2016 (SCI-Expanded)
- LVII. **Li-Yorke chaos generation by SICNNs with chaotic/almost periodic postsynaptic currents**
AKHMET M., Fen M. O., Kivilcim A.
NEUROCOMPUTING, vol.173, pp.580-594, 2016 (SCI-Expanded)
- LVIII. **Chaotification of Impulsive Systems**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.157-181, 2016 (SCI-Expanded)
- LIX. **Spatiotemporal Chaos in Glow Discharge-Semiconductor Systems**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.441-457, 2016 (SCI-Expanded)
- LX. **The Prevalence of Weather Unpredictability**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.407-440, 2016 (SCI-Expanded)
- LXI. **Chaos Generation in Continuous/Discrete-Time Models**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.183-264, 2016 (SCI-Expanded)
- LXII. **The Solution of the Second Peskin Conjecture and Developments**
AKHMET M.
MATHEMATICAL MODELING AND APPLICATIONS IN NONLINEAR DYNAMICS, vol.14, pp.1-46, 2016 (SCI-Expanded)
- LXIII. **Replication of Continuous Chaos About Equilibria**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.33-100, 2016 (SCI-Expanded)
- LXIV. **Replication of Chaos in Neural Networks, Economics and Physics Preface**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, 2016 (SCI-Expanded)
- LXV. **Replication of Chaos in Neural Networks, Economics and Physics Introduction**
AKHMET M., Fen M. O.

- REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.1-32, 2016 (SCI-Expanded)
- LXVI. **Economic Models with Exogenous Continuous/Discrete Shocks**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.265-310, 2016 (SCI-Expanded)
- LXVII. **ANALYSIS OF IMPACT CHATTERING**
AKHMET M., Cag S.
MISKOLC MATHEMATICAL NOTES, vol.17, no.2, pp.707-721, 2016 (SCI-Expanded)
- LXVIII. **Finite-time nonautonomous bifurcation in impulsive systems**
AKHMET M., Kashkynbayev A.
ELECTRONIC JOURNAL OF QUALITATIVE THEORY OF DIFFERENTIAL EQUATIONS, 2016 (SCI-Expanded)
- LXIX. **Chaos Extension in Hyperbolic Systems**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.101-125, 2016 (SCI-Expanded)
- LXX. **Chaos by Neural Networks**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.311-405, 2016 (SCI-Expanded)
- LXXI. **Li-Yorke Chaos in Hybrid Systems on a Time Scale**
AKHMET M., Fen M. O.
INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, vol.25, no.14, 2015 (SCI-Expanded)
- LXXII. **Extension of Lorenz Unpredictability**
AKHMET M., Fen M. O.
INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, vol.25, no.10, 2015 (SCI-Expanded)
- LXXIII. **Attraction of Li-Yorke chaos by retarded SICNNs**
AKHMET M., Fen M. O.
NEUROCOMPUTING, vol.147, pp.330-342, 2015 (SCI-Expanded)
- LXXIV. **Generation of cyclic/toroidal chaos by Hopfield neural networks**
AKHMET M., Fen M. O.
NEUROCOMPUTING, vol.145, pp.230-239, 2014 (SCI-Expanded)
- LXXV. **Extension of spatiotemporal chaos in glow discharge-semiconductor systems**
AKHMET M., RAFATOV I., FEN M. O.
CHAOS, vol.24, no.4, 2014 (SCI-Expanded)
- LXXVI. **Chaos in economic models with exogenous shocks**
AKHMET M., Akhmetova Z., Fen M. O.
JOURNAL OF ECONOMIC BEHAVIOR & ORGANIZATION, vol.106, pp.95-108, 2014 (SSCI)
- LXXVII. **Entrainment by Chaos**
AKHMET M., Fen M. O.
JOURNAL OF NONLINEAR SCIENCE, vol.24, no.3, pp.411-439, 2014 (SCI-Expanded)
- LXXVIII. **Chaotification of Impulsive Systems by Perturbations**
AKHMET M., Fen M. O.
INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, vol.24, no.6, 2014 (SCI-Expanded)
- LXXIX. **QUASILINEAR RETARDED DIFFERENTIAL EQUATIONS WITH FUNCTIONAL DEPENDENCE ON PIECEWISE CONSTANT ARGUMENT**
AKHMET M.
COMMUNICATIONS ON PURE AND APPLIED ANALYSIS, vol.13, no.2, pp.929-947, 2014 (SCI-Expanded)
- LXXX. **Bifurcation of discontinuous limit cycles of the Van der Pol equation**
AKHMET M., TURAN M.
MATHEMATICS AND COMPUTERS IN SIMULATION, vol.95, pp.39-54, 2014 (SCI-Expanded)
- LXXXI. **Replication of chaos**
AKHMET M., Fen M. O.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.18, no.10, pp.2626-2666, 2013 (SCI-Expanded)

- LXXXII. **Shunting inhibitory cellular neural networks with chaotic external inputs**
AKHMET M., Fen M. O.
CHAOS, vol.23, no.2, 2013 (SCI-Expanded)
- LXXXIII. **NON-AUTONOMOUS BIFURCATION IN IMPULSIVE SYSTEMS**
AKHMET M., Kashkynbayev A.
ELECTRONIC JOURNAL OF QUALITATIVE THEORY OF DIFFERENTIAL EQUATIONS, no.74, pp.1-23, 2013 (SCI-Expanded)
- LXXXIV. **NONAUTONOMOUS TRANSCRITICAL AND PITCHFORK BIFURCATIONS IN IMPULSIVE SYSTEMS**
AKHMET M., Kashkynbayev A.
MISKOLC MATHEMATICAL NOTES, vol.14, no.3, pp.737-748, 2013 (SCI-Expanded)
- LXXXV. **Global exponential stability of neural networks with non-smooth and impact activations**
AKHMET M., YILMAZ E.
NEURAL NETWORKS, vol.34, pp.18-27, 2012 (SCI-Expanded)
- LXXXVI. **Stability of neural networks**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.121-132, 2011 (SCI-Expanded)
- LXXXVII. **Linear and quasi-linear systems with piecewise constant argument**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.17-32, 2011 (SCI-Expanded)
- LXXXVIII. **Almost periodic solutions**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.105-119, 2011 (SCI-Expanded)
- LXXXIX. **The blood pressure distribution**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.133-174, 2011 (SCI-Expanded)
- XC. **Stability**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.71-88, 2011 (SCI-Expanded)
- XCI. **Nonlinear Hybrid Continuous/Discrete-Time Models Introduction**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.1-31, 2011 (SCI-Expanded)
- XCII. **The small parameter and differential equations with piecewise constant argument**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.49-69, 2011 (SCI-Expanded)
- XCIII. **The state-dependent piecewise constant argument**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.89-104, 2011 (SCI-Expanded)
- XCIV. **Integrate-and-fire biological oscillators**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.175-199, 2011 (SCI-Expanded)
- XCV. **The reduction principle for systems with piecewise constant argument**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.33-48, 2011 (SCI-Expanded)
- XCVI. **Stability analysis of recurrent neural networks with piecewise constant argument of generalized type**
AKHMET M., ARUĞASLAN ÇİNÇİN D., YILMAZ E.
NEURAL NETWORKS, vol.23, no.7, pp.805-811, 2010 (SCI-Expanded)
- XCVII. **Impulsive Hopfield-type neural network system with piecewise constant argument**
AKHMET M., YILMAZ E.
NONLINEAR ANALYSIS-REAL WORLD APPLICATIONS, vol.11, no.4, pp.2584-2593, 2010 (SCI-Expanded)
- XCVIII. **Differential equations with state-dependent piecewise constant argument**

- AKHMET M., Buyukadali C.
NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.72, no.11, pp.4200-4210, 2010 (SCI-Expanded)
- XCIX. A prototype compartmental model of blood pressure distribution**
AKHMET M., Bekmukhambetova G. A.
NONLINEAR ANALYSIS-REAL WORLD APPLICATIONS, vol.11, no.3, pp.1249-1257, 2010 (SCI-Expanded)
- C. Homoclinical structure of the chaotic attractor**
AKHMET M.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.15, no.4, pp.819-822, 2010 (SCI-Expanded)
- CI. Stability in cellular neural networks with a piecewise constant argument**
AKHMET M., ARUĞASLAN ÇİNÇİN D., YILMAZ E.
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.233, no.9, pp.2365-2373, 2010 (SCI-Expanded)
- CII. Nonautonomous Systems with Variable Moments of Impulses**
Akhmet M.
PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.55-80, 2010 (SCI-Expanded)
- CIII. Discontinuous Dynamical Systems**
Akhmet M.
PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.113-137, 2010 (SCI-Expanded)
- CIV. Stability and Periodic Solutions of Systems with Fixed Moments of Impulses**
Akhmet M.
PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.25-30, 2010 (SCI-Expanded)
- CV. Periodic Solutions of Nonlinear Systems**
Akhmet M.
PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.99-111, 2010 (SCI-Expanded)
- CVI. Basics of Linear Systems**
Akhmet M.
PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.31-54, 2010 (SCI-Expanded)
- CVII. Perturbations and Hopf Bifurcation of a Discontinuous Limit Cycle**
Akhmet M.
PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.139-154, 2010 (SCI-Expanded)
- CVIII. Principles of Discontinuous Dynamical Systems Introduction**
Akhmet M.
PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.1-13, 2010 (SCI-Expanded)
- CIX. Differentiability Properties of Nonautonomous Systems**
Akhmet M.
PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.81-98, 2010 (SCI-Expanded)
- CX. Description of the System with Fixed Moments of Impulses and Its Solutions**
Akhmet M.
PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.7-24, 2010 (SCI-Expanded)
- CXI. Chaos and Shadowing**
Akhmet M.
PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.155-165, 2010 (SCI-Expanded)
- CXII. The complex dynamics of the cardiovascular system**
AKHMET M.
NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.71, no.12, 2009 (SCI-Expanded)
- CXIII. Bifurcation of three-dimensional discontinuous cycles**
AKHMET M., TURAN M.
NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.71, no.12, 2009 (SCI-Expanded)
- CXIV. Bifurcation of a non-smooth planar limit cycle from a vertex**
AKHMET M., Arugaslan D.
NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.71, no.12, 2009 (SCI-Expanded)

- CXV. **SHADOWING AND DYNAMICAL SYNTHESIS**
AKHMET M.
INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, vol.19, no.10, pp.3339-3346, 2009 (SCI-Expanded)
- CXVI. **LYAPUNOV-RAZUMIKHIN METHOD FOR DIFFERENTIAL EQUATIONS WITH PIECEWISE CONSTANT ARGUMENT**
AKHMET M., Arugaslan D.
DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS, vol.25, no.2, pp.457-466, 2009 (SCI-Expanded)
- CXVII. **DYNAMICAL SYNTHESIS OF QUASI-MINIMAL SETS**
AKHMET M.
INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, vol.19, no.7, pp.2423-2427, 2009 (SCI-Expanded)
- CXVIII. **Devaney's chaos of a relay system**
AKHMET M.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.14, no.4, pp.1486-1493, 2009 (SCI-Expanded)
- CXIX. **Li-Yorke chaos in the system with impacts**
AKHMET M.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.351, no.2, pp.804-810, 2009 (SCI-Expanded)
- CXX. **Differential equations on variable time scales**
AKHMET M., Turan M.
NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.70, no.3, pp.1175-1192, 2009 (SCI-Expanded)
- CXXI. **On periodic solutions of differential equations with piecewise constant argument**
AKHMET M., Buyukadali C.
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.56, no.8, pp.2034-2042, 2008 (SCI-Expanded)
- CXXII. **Asymptotic behavior of solutions of differential equations with piecewise constant arguments**
AKHMET M.
APPLIED MATHEMATICS LETTERS, vol.21, no.9, pp.951-956, 2008 (SCI-Expanded)
- CXXIII. **Asymptotic behavior of linear impulsive integro-differential equations**
AKHMET M., Tleubergenova M. A., YILMAZ O.
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.56, no.4, pp.1071-1081, 2008 (SCI-Expanded)
- CXXIV. **Almost periodic solutions of differential equations with piecewise constant argument of generalized type**
AKHMET M.
NONLINEAR ANALYSIS-HYBRID SYSTEMS, vol.2, no.2, pp.456-467, 2008 (SCI-Expanded)
- CXXV. **Periodic solutions of the hybrid system with small parameter**
AKHMET M., Buyukadali C., Ergenc T.
NONLINEAR ANALYSIS-HYBRID SYSTEMS, vol.2, no.2, pp.532-543, 2008 (SCI-Expanded)
- CXXVI. **Stability of differential equations with piecewise constant arguments of generalized type**
AKHMET M.
NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.68, no.4, pp.794-803, 2008 (SCI-Expanded)
- CXXVII. **On the reduction principle for differential equations with piecewise constant argument of generalized type**
Akhmet M. U.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.336, no.1, pp.646-663, 2007 (SCI-Expanded)
- CXXVIII. **Asymptotic equivalence of differential equations and asymptotically almost periodic solutions**
Akhmet M. U., Tleubergenova M. A., Zafer A.
NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.67, no.6, pp.1870-1877, 2007 (SCI-Expanded)
- CXXIX. **Integral manifolds of differential equations with piecewise constant argument of generalized type**
Akhmet M. U.
NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.66, no.2, pp.367-383, 2007 (SCI-Expanded)
- CXXX. **The differential equations on time scales through impulsive differential equations**
Akhmet M. U., Turan M.

- NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.65, no.11, pp.2043-2060, 2006 (SCI-Expanded)
- CXXXI. **An impulsive ratio-dependent predator-prey system with diffusion**
 Akhmet M. U., Beklioglu M., Ergenc T., Tkachenko V. I.
 NONLINEAR ANALYSIS-REAL WORLD APPLICATIONS, vol.7, no.5, pp.1255-1267, 2006 (SCI-Expanded)
- CXXXII. **Perron's theorem for linear impulsive differential equations with distributed delay**
 Akhmet M. U., Alzabut J., Zafer A.
 JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.193, no.1, pp.204-218, 2006 (SCI-Expanded)
- CXXXIII. **Boundary value problems for higher order linear impulsive differential equations**
 Ugur O., AKHMET M.
 JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.319, no.1, pp.139-156, 2006 (SCI-Expanded)
- CXXXIV. **Control and optimal response problems for quasilinear impulsive integrodifferential equations**
 Akhmet M., Kirane M., Tleubergenova M., Weber G.
 EUROPEAN JOURNAL OF OPERATIONAL RESEARCH, vol.169, no.3, pp.1128-1147, 2006 (SCI-Expanded)
- CXXXV. **The Sturm-Liouville operator on the space of functions with discontinuity conditions**
 Ugur O., Akhmet M.
 COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.51, no.6-7, pp.889-896, 2006 (SCI-Expanded)
- CXXXVI. **The principles of B-smooth discontinuous flows**
 Akalin E., Akhmet M.
 COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.49, pp.981-995, 2005 (SCI-Expanded)
- CXXXVII. **On the smoothness of solutions of impulsive autonomous systems**
 Akhmet M.
 NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.60, no.2, pp.311-324, 2005 (SCI-Expanded)
- CXXXVIII. **Perturbations and Hopf bifurcation of the planar discontinuous dynamical system**
 Akhmet M.
 NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.60, no.1, pp.163-178, 2005 (SCI-Expanded)
- CXXXIX. **Existence and stability of almost-periodic solutions of quasi-linear differential equations with deviating argument**
 Akhmet M.
 APPLIED MATHEMATICS LETTERS, vol.17, no.10, pp.1177-1181, 2004 (SCI-Expanded)
- CXL. **Controllability of two-point nonlinear boundary-value problems by the numerical-analytic method**
 Akhmet M., Zafer A.
 APPLIED MATHEMATICS AND COMPUTATION, vol.151, no.3, pp.729-744, 2004 (SCI-Expanded)
- CXLI. **On the general problem of stability for impulsive differential equations**
 Akhmet M.
 JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.288, no.1, pp.182-196, 2003 (SCI-Expanded)

Articles Published in Other Journals

- I. **ASYMPTOTIC EXPANSION OF THE SOLUTION FOR SINGULAR PERTURBED LINEAR IMPULSIVE SYSTEMS**
 Dauylbayev M., AKHMET M., Aviltay N.
 KazNU Bulletin. Mathematics, Mechanics, Computer Science Series, vol.122, no.2, pp.14-26, 2024 (ESCI)
- II. **Application of Genetic Algorithms for Periodicity Recognition and Finite Sequences Sorting**
 Zhassuzak M., AKHMET M., Amirgaliyev Y., Buribayev Z.
 Algorithms, vol.17, no.3, 2024 (ESCI)
- III. **A CASE OF IMPULSIVE SINGULARITY**
 Akhmet M., Aviltay N., Dauylbayev M. K., Seilova R.
 JOURNAL OF MATHEMATICS MECHANICS AND COMPUTER SCIENCE, vol.117, no.1, pp.3-14, 2023 (ESCI)
- IV. **Analysis of an Undamped Mass-Spring System with Generalized Piecewise Constant Argument**
 AKHMET M., Çinçin D. A., Özkan Z.

Journal of Vibration Testing and System Dynamics, vol.7, no.4, pp.419-429, 2023 (Scopus)

- V. **Almost Periodic Solutions of Recurrent Neural Networks with State-Dependent and Structured Impulses**
AKHMET M., ERİM G.
Discontinuity, Nonlinearity, and Complexity, vol.12, no.1, pp.141-165, 2023 (Scopus)
- VI. **A Numerical Analysis of Poincare Chaos**
AKHMET M., Fen M. O., Tola A.
Discontinuity, Nonlinearity, and Complexity, vol.12, no.1, pp.183-195, 2023 (Scopus)
- VII. **Almost Periodic Solutions of Recurrently Structured Impulsive Neural Networks**
AKHMET M., ERİM G.
Discontinuity, Nonlinearity, and Complexity, vol.11, no.3, pp.373-385, 2022 (Scopus)
- VIII. **Modular Chaos for Random Processes**
AKHMET M.
Discontinuity, Nonlinearity, and Complexity, vol.11, no.2, pp.191-201, 2022 (Scopus)
- IX. **Abstract Hyperbolic Chaos**
AKHMET M.
Discontinuity, Nonlinearity, and Complexity, vol.11, no.1, pp.133-138, 2022 (Scopus)
- X. **Unpredictable Solutions of Impulsive Quasi-Linear Systems**
AKHMET M., Tleubergenova M., Nugayeva Z.
Discontinuity, Nonlinearity, and Complexity, vol.11, no.1, pp.73-89, 2022 (Scopus)
- XI. **Discontinuity, Nonlinearity, and Complexity**
AKHMET M., Alejaily E. M.
Discontinuity, Nonlinearity, and Complexity, vol.10, no.1, pp.135-142, 2021 (Scopus)
- XII. **Bifurcation Analysis of Wilson-Cowan Model with Singular Impulses**
AKHMET M., Çağ S.
Discontinuity, Nonlinearity, and Complexity, vol.10, no.1, pp.161-172, 2021 (Scopus)
- XIII. **Dynamics with Fractals**
AKHMET M., Fen M. O., Alejaily E. M.
Discontinuity, Nonlinearity, and Complexity, vol.10, no.2, pp.174-184, 2021 (Scopus)
- XIV. **Preface**
Vadera S., AKHMET M.
ACM International Conference Proceeding Series, vol.28, 2020 (ESCI)
- XV. **Nonautonomous Bifurcations in Nonlinear Impulsive Systems**
AKHMET M., Kashkynbayev A.
DIFFERENTIAL EQUATIONS AND DYNAMICAL SYSTEMS, vol.28, no.1, pp.177-190, 2020 (ESCI)
- XVI. **Preface**
Vadera S., AKHMET M.
ACM International Conference Proceeding Series, vol.15, pp.305-313, 2019 (ESCI)
- XVII. **Preface**
Vadera S., AKHMET M.
ACM International Conference Proceeding Series, vol.15, pp.305-313, 2019 (ESCI)
- XVIII. **Strongly unpredictable solutions of difference equations**
AKHMET M., Tleubergenova M., Zhamanshin A.
INTERNATIONAL JOURNAL OF MATHEMATICS AND PHYSICS, vol.10, no.2, pp.11-15, 2019 (ESCI)
- XIX. **Tikhonov theorem for differential equations with singular impulses**
AKHMET M., Çağ S.
Discontinuity, Nonlinearity, and Complexity, vol.7, no.3, pp.291-303, 2018 (Scopus)
- XX. **Asymptotic convergence of the solution of the initial value problem for singularly perturbed higher-order integro-differential equation**
Dauylbayev M. K., AKHMET M., Mirzakulova A. E., Uaissov A. B.
INTERNATIONAL JOURNAL OF MATHEMATICS AND PHYSICS, vol.9, no.1, pp.50-59, 2018 (ESCI)

- XXI. **Almost periodicity in chaos**
AKHMET M., Fen M. O.
Discontinuity, Nonlinearity, and Complexity, vol.7, no.1, pp.15-29, 2018 (Scopus)
- XXII. **Van der Pol oscillators generated from grazing dynamics**
AKHMET M., Kivilcim A.
Discontinuity, Nonlinearity, and Complexity, vol.7, no.3, pp.259-274, 2018 (Scopus)
- XXIII. **Preface**
AKHMET M., Kashkynbayev A.
Nonlinear Physical Science, vol.25, 2017 (ESCI)
- XXIV. **An impact oscillator with a grazing cycle**
AKHMET M., Kivilcim A.
Discontinuity, Nonlinearity, and Complexity, vol.6, no.2, pp.105-111, 2017 (Scopus)
- XXV. **The Models with Impact Deformations**
AKHMET M., AYSEGUL K.
The interdisciplinary journal of Discontinuity, Nonlinearity and Complexity, vol.4, no.1, pp.49-78, 2015 (Scopus)
- XXVI. **On chaotic synchronization via impulsive control and piecewise constant arguments**
MOHAMAD S A., XINZHI L., AKHMET M.
Dynamics of Continuous, Discrete and Impulsive Systems Series B: Applications and Algorithms, vol.22, no.1, pp.53-67, 2015 (Scopus)
- XXVII. **A new method of chaos generation**
AKHMET M., FEN M. O.
Nonlinear Studies, vol.21, no.2, pp.195-203, 2014 (Scopus)
- XXVIII. **Almost periodic solutions of second order neutral differential equations with functional response on piecewise constant argument**
AKHMET M.
Discontinuity, Nonlinearity, and Complexity, vol.2, no.4, pp.369-388, 2013 (Scopus)
- XXIX. **Exponentially dichotomous linear systems of differential equations with piecewise constant argument**
AKHMET M.
Discontinuity, Nonlinearity, and Complexity, vol.1, no.4, pp.337-352, 2012 (Scopus)
- XXX. **Chaos generation in hyperbolic systems**
AKHMET M., FEN M. O.
Discontinuity, Nonlinearity, and Complexity, vol.1, no.4, pp.367-386, 2012 (Scopus)
- XXXI. **Bifurcation in a 3D Hybrid system**
AKHMET M., Turan M.
Communications in Applied Analysis, vol.14, no.3-4, pp.311-324, 2010 (Scopus)
- XXXII. **Hopf bifurcation for a 3D filippov system**
AKHMET M., Aruğaslan D., Turan M.
Dynamics of Continuous, Discrete and Impulsive Systems Series A: Mathematical Analysis, vol.16, no.6, pp.759-775, 2009 (Scopus)
- XXXIII. **Almost periodic solutions of the linear differential equation with piecewise constant argument**
AKHMET M.
Dynamics of Continuous, Discrete and Impulsive Systems Series A: Mathematical Analysis, vol.16, no.5, pp.743-753, 2009 (Scopus)
- XXXIV. **On periodic solutions of linear impulsive delay differential systems**
AKHMET M., Alzabut J., Zafer A.
Dynamics of Continuous, Discrete and Impulsive Systems Series A: Mathematical Analysis, vol.15, no.5, pp.621-631, 2008 (Scopus)
- XXXV. **Permanence of nonautonomous ratio dependent predator prey systems with piecewise constant argument of generalized type**
AKHMET M., ARUĞASLAN ÇİNÇİN D., XIAOYAN L.

Dynamics of Continuous, Discrete and Impulsive Systems Series A: Mathematical Analysis, vol.15, no.1, pp.37-51, 2008 (Scopus)

XXXVI. **Positive solutions of linear impulsive differential equations**

AKHMET M., Yilmaz O.

Nonlinear Oscillations, vol.8, no.3, pp.289-295, 2005 (Scopus)

Books & Book Chapters

- I. **Domain Structured Dynamics: Unpredictability, chaos, randomness, fractals, differential equations and neural networks**
Akhmet M.
Institute of Physics Publishing (IOP) , Bristol, 2021
- II. **Dynamics with Chaos and Fractals**
Akhmet M.
Springer, London/Berlin , Basel, 2020
- III. **Almost Periodicity, Chaos, and Asymptotic Equivalence**
Akhmet M.
Springer, London/Berlin , Zug, 2019
- IV. **Bifurcation in Autonomous and Nonautonomous Differential Equations with Discontinuities**
Akhmet M., Kashkynbayev A.
Springer, London/Berlin , New-York, 2017
- V. **Functional Differential Equations with Piecewise Constant Argument.**
Akhmet M.
in: Regularity and Stochasticity of Nonlinear Dynamical Systems., Dimitri Volchenkov,Xavier Leoncini, Editor,
Springer, London/Berlin , Zug, pp.79-109, 2017
- VI. **Grazing in Impulsive Differential Equations.**
Akhmet M., Kivilcim A.
in: Regularity and Stochasticity of Nonlinear Dynamical Systems, Dimitri Volchenkov,Xavier Leoncini, Editor,
Springer, London/Berlin , Zug, pp.111-159, 2017
- VII. **Replication of chaos in neural networks, economics and physics**
Akhmet M., Fen M. O.
Springer, London/Berlin , Heidelberg, 2016
- VIII. **Input-Output Mechanism of the Discrete Chaos Extension**
Akhmet M., Fen M. O.
in: Complex motions and chaos in nonlinear systems. , Valentin Afraimovich, José António Tenreiro Machado, Jiazhong Zhang, Editor, Springer, London/Berlin , Zug, pp.203-233, 2016
- IX. **The Solution of the Second Peskin Conjecture and Developments**
Akhmet M.
in: Mathematical Modeling and Applications in Nonlinear Dynamics, Albert C.J. Luo, Hüseyin Merdan, Editor,
Springer, London/Berlin , Zug, pp.1-46, 2016
- X. **Neural Networks with Discontinuous/Impact Activations**
Akhmet M., Yilmaz E.
Springer, London/Berlin , New-York, 2013
- XI. **Nonlinear hybrid continuous/discrete-time models**
Akhmet M.
Atlantic Publishing , Paris, 2011
- XII. **Principles of discontinuous dynamical systems.**
Akhmet M.
Springer, London/Berlin , New-York, 2010

Refereed Congress / Symposium Publications in Proceedings

- I. **A Novel Deterministic Chaos and Discrete Random Processes**
AKHMET M.
12th International Conference on Information Management and Engineering, ICIME 2020, Virtual, Online, Netherlands, 16 - 18 September 2020, pp.53-56
- II. **Neural networks with poincare chaos**
AKHMET M., Tleubergenova M., Zhamanshin A.
11th International Conference on Information Management and Engineering, ICIME 2019, London, England, 19 - 21 September 2019, pp.34-37
- III. **Mapping Fatou-Julia Iterations**
AKHMET M., Fen M. O., Alejaily E. M.
10th International Conference on Information Management and Engineering (ICIME), Manchester, United Kingdom, 22 - 24 September 2018, pp.64-67
- IV. **Exponential stability of periodic solutions of recurrent neural networks with functional dependence on piecewise constant argument**
AKHMET M., ARUĞASLAN ÇİNÇİN D., Cengiz N.
International Conference on Pure and Applied Mathematics (ICPAM 2015), 25 - 28 August 2015
- V. **EXTENSION OF CHAOS CONTROL AND APPLICATIONS**
AKHMET M.
International Conference on Pure and Applied Mathematics (ICPAM 2015), 25 - 28 August 2015
- VI. **Attraction of Li Yorke chaos by retarded SICNNs**
AKHMET M., Mehmet Onur F.
The Seventh International Conference on Dynamic Systems and Applications & Fifth International Conference on Neural, Parallel, and Scientific Computations, Atlanta, United States Of America, 27 - 30 May 2015
- VII. **Input-Output Mechanism of the Discrete Chaos Extension**
AKHMET M., Fen M. O.
5th International Conference on Nonlinear Science and Complexity (NSC), Xian, China, 4 - 09 August 2014, vol.15, pp.203-233
- VIII. **Period-doubling route to chaos in shunting inhibitory cellular neural networks**
AKHMET M., FEN M. O.
2013 8th International Symposium on Health Informatics and Bioinformatics, HIBIT 2013, Ankara, Turkey, 25 - 27 September 2013
- IX. **Replication of discrete chaos**
AKHMET M., FEN M. O.
6th International Conference on Chaotic Modeling and Simulation, CHAOS 2013, İstanbul, Turkey, 11 - 14 June 2013, pp.25-31
- X. **New criteria for generalized synchronization preserving the chaos type**
AKHMET M., FEN M. O.
6th International Conference on Chaotic Modeling and Simulation, CHAOS 2013, İstanbul, Turkey, 11 - 14 June 2013, pp.17-24
- XI. **An anticipatory extension of Malthusian model**
AKHMET M., ÖKTEM H. A., Pickl S. W., WEBER G. W.
7th International Conference on Computing Anticipatory Systems (CASYS 05), Liege, Belgium, 8 - 13 August 2005, vol.839, pp.260-262

Supported Projects

AKHMET M., Project Supported by Higher Education Institutions, FONKSİYONEL DİFERANSİYEL DENKLEMLERİN KAOLİT ÇÖZÜMLERİ, 2017 - 2017

AKHMET M., Project Supported by Higher Education Institutions, KISMİ DİFERANSİYEL DENKLEMLERİN KAOLİT ÇÖZÜMLERİ VE UYGULAMALARI, 2017 - 2017

AKHMET M., Project Supported by Higher Education Institutions, Monotone Discontinuous Dynamical Systems And Applications, 2012 - 2012

AKHMET M., Project Supported by Higher Education Institutions, Düzensizlikler Yardımıyla Adi Ve Kısmi Diferansiyel Denklemlerde Kaos Üretimi Ve Kontrolü, 2010 - 2012

AKHMET M., Project Supported by Higher Education Institutions, Sinir Ağlarının Kompleks Dinamiği, 2008 - 2008

Activities in Scientific Journals

Applied Mathematics and Nonlinear Sciences, Committee Member, 2017 - Continues

Discontinuity, Nonlinearity and Complexity, Committee Member, 2015 - Continues

Discrete and Impulsive Systems, Series A, Committee Member, 2005 - Continues

Scientific Refereeing

NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, SCI Journal, January 2017

TURKISH JOURNAL OF MATHEMATICS, National Scientific Refreed Journal, January 2016

NEUROCOMPUTING, SCI Journal, January 2015

DYNAMICS OF CONTINUOUS DISCRETE AND IMPULSIVE SYSTEMS-SERIES B-APPLICATIONS, SCI Journal, January 2014

NEURAL NETWORKS, SCI Journal, January 2012

NONLINEAR ANALYSIS-HYBRID SYSTEMS, SCI Journal, January 2012

Communications in Nonlinear Sciences and Numerical Simulations, Other Indexed Journal, January 2011

NONLINEAR ANALYSIS-REAL WORLD APPLICATIONS, SCI Journal, January 2010

COMPUTERS & MATHEMATICS WITH APPLICATIONS, SCI Journal, January 2010

Journal of Mathematical Analysis and Applications, Other Indexed Journal, January 2007

APPLIED MATHEMATICS LETTERS, Other Indexed Journal, January 2007

Tasks In Event Organizations

Akhmet M., 3rd of International Conference on Neurology and Brain Disorders, Scientific Congress, Paris, France, Haziran 2019

Akhmet M., 3rd International Conference on Frontiers of Image Processing, Scientific Congress, Florence, Italy, Mart 2019

Akhmet M., 5th Edition of International Conference on Knowledge and Software Engineering, Scientific Congress, Praha, Czech Republic, Mart 2019

Akhmet M., 6th International Conference on Mathematics and Information Sciences, Scientific Congress, Sawhaj, Egypt, Şubat 2019

Akhmet M., 10th International Conference on Information Management and Engineering, Scientific Congress, Manchester, United Kingdom, Eylül 2018

Akhmet M., International Conference on Neurology and Brain Disorders, Scientific Congress, Manchester, United Kingdom, Eylül 2018

Akhmet M., 2nd of International Conference on Neurology and Brain Disorders, Scientific Congress, Rome, Italy, Haziran 2018

Akhmet M., 2nd International Conference on Frontiers of Image Processing, Scientific Congress, Barcelona, Spain, Mart 2018

Akhmet M., 7th International Conference on Mathematics and Information Sciences, Scientific Congress, Sawhaj, Egypt, Şubat 2018

Akhmet M., Ankara Mathematics Days Symposium, Scientific Congress, Ankara, Turkey, Mayıs 2016
Akhmet M., 5th International Conference on Mathematics and Information Sciences, Scientific Congress, Sawhaj, Egypt, Şubat 2016
Akhmet M., International Conference on Nonlinear Differential and Difference Equations: Recent Developments and Applications, Scientific Congress, Antalya, Turkey, Mayıs 2014
Akhmet M., 6th Chaotic Modeling and Simulation International Conference , Scientific Congress, İstanbul, Turkey, Haziran 2013
Akhmet M., 1st Workshop on Complex Dynamical Systems and Their Applications, Scientific Congress, Ankara, Turkey, Ekim 2012
Akhmet M., Ankara Mathematics Days Symposium, Scientific Congress, Ankara, Turkey, Haziran 2010
Akhmet M., 3rd International Conference on Complex Systems and Applications, Scientific Congress, Paris, France, Temmuz 2009
Akhmet M., Ankara Mathematics Days Symposium, Scientific Congress, Ankara, Turkey, Mayıs 2008

Metrics

Publication: 203
Citation (WoS): 1344
Citation (Scopus): 1866
H-Index (WoS): 21
H-Index (Scopus): 24

Congress and Symposium Activities

The 3rd International Conference on Neurology and Brain Disorders, Working Group, Paris, France, 2019
The 3rd International Conference on Frontiers of Image Processing, Working Group, Florence, Italy, 2019
International Conference on Information Hiding and Image Processing, Working Group, Manchester, United Kingdom, 2018
The 10th International Conference on Information Management and Engineering, Working Group, Manchester, United Kingdom, 2018
The 2nd International Conference on Neurology and Brain Disorders, Working Group, Rome, Italy, 2018
The 2nd International Conference on Frontiers of Image Processing, Working Group, Barcelona, Spain, 2018
The 4th Computational Mathematics and Applications Conference, Working Group, Guilin, China, 2017
8th International Conference on Information Management and Engineering, Working Group, İstanbul, Turkey, 2016
Ankara Mathematics Days Symposium, Working Group, Ankara, Turkey, 2016
7th International Conference on Information Management and Engineering, Working Group, Rome, Italy, 2015
International Conference on Pure and Applied Mathematics, Working Group, Van, Turkey, 2015
3rd International Conference on Complex Dynamical Systems and Their Applications: New Mathematical Concepts and Applications in Life Sciences, Working Group, Ankara, Turkey, 2014
International Conference on Nonlinear Differential and Difference Equations: Recent Developments and Applications, Working Group, Antalya, Turkey, 2014
6th Chaotic Modeling and Simulation International Conference, Working Group, İstanbul, Turkey, 2013
1st Workshop on Complex Dynamical Systems and Their Applications, Working Group, Ankara, Turkey, 2012