Prof. MARAT AKHMET

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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. **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)

II. **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)

III. **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)

IV. **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)

V. **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)

VI. **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)

VII. **Compartmental Unpredictable Functions**
AKHMET M., Tleubergenova M., Zhamanshin A.
Mathematics, vol.11, no.5, 2023 (SCI-Expanded)

VIII. **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)

IX. **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)

X. **A novel criterion for unpredictable motions**
FEN F., Fen M. O., AKHMET M.
FILOMAT, vol.37, no.18, pp.6151-6160, 2023 (SCI-Expanded)

XI. **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)

XII. **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)

XIII. **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)

XIV. **Delta synchronization of Poincare chaos in gas discharge-semiconductor systems**
AKHMET M., Baskan K., YEŞİL C.
CHAOS, vol.32, no.8, 2022 (SCI-Expanded)

XV. **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)

XVI. **Unpredictability in Markov chains**
AKHMET M.
CARPATHIAN JOURNAL OF MATHEMATICS, vol.38, no.1, pp.13-19, 2022 (SCI-Expanded)

XVII. **Modulo Periodic Poisson Stable Solutions of Quasilinear Differential Equations**
AKHMET M., Tleubergenova M., Zhamanshin A.
ENTROPY, vol.23, no.11, 2021 (SCI-Expanded)

XVIII. **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)

XIX. **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)

XX. **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)

XXI. **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)

XXII. **Inertial Neural Networks with Unpredictable Oscillations**
AKHMET M., Tleubergenova M., Zhamanshin A.
MATHEMATICS, vol.8, no.10, pp.1-11, 2020 (SCI-Expanded)

XXIII. **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)

XXIV. **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)

XXV. **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)

XXVI. **Generation of fractals as Duffing equation orbits**
AKHMET M., Fen M. O., Alejaily E. M.
CHAOS, vol.29, no.5, 2019 (SCI-Expanded)

XXVII. **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)

XXVIII. **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)

XXIX. **POINCARE 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)

XXX. **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)

XXXI. **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)

XXXII. **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)

XXXIII. **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)

XXXIV. **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)

XXXV. **Chattering as a singular problem**
AKHMET M., Cag S.
NONLINEAR DYNAMICS, vol.90, no.4, pp.2797-2812, 2017 (SCI-Expanded)

XXXVI. **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-

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XXXVII. **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)

XXXVIII. **VERTICAL AND HORIZONTAL GRAZING**
AKHMET M., Kivilcim A.
DYNAMIC SYSTEMS AND APPLICATIONS, vol.26, no.1, pp.131-145, 2017 (SCI-Expanded)

XXXIX. **Non-autonomous grazing phenomenon**
AKHMET M., Kivilcim A.
NONLINEAR DYNAMICS, vol.87, no.3, pp.1973-1984, 2017 (SCI-Expanded)

XL. **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)

XLI. **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)

XLII. **Hopf Bifurcation in Filippov Systems**
AKHMET M., Kashkynbayev A.
BIFURCATION IN AUTONOMOUS AND NONAUTONOMOUS DIFFERENTIAL EQUATIONS WITH DISCONTINUITIES, pp.65-96, 2017 (SCI-Expanded)

XLIII. **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)

XLIV. **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)

XLV. **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)

XLVI. **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)

XLVII. **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)

XLVIII. **Hopf Bifurcation in Impulsive Systems**
AKHMET M., Kashkynbayev A.
BIFURCATION IN AUTONOMOUS AND NONAUTONOMOUS DIFFERENTIAL EQUATIONS WITH DISCONTINUITIES, pp.11-63, 2017 (SCI-Expanded)

XLIX. **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)

L.   **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)

LI.   **Unpredictable points and chaos**
AKHMET M., Fen M. O.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.40, pp.1-5, 2016 (SCI-Expanded)

LII.   **Discontinuous dynamics with grazing points**
AKHMET M., Kivilcim A.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.38, pp.218-242, 2016 (SCI-Expanded)

LIII.   **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)

LIV.   **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)

LV.   **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)

LVI.   **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)

LVII.   **Chaos by Neural Networks**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.311-405, 2016 (SCI-Expanded)

LVIII.   **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)

LIX.   **ANALYSIS OF IMPACT CHATTERING**
AKHMET M., Cag S.
MISKOLC MATHEMATICAL NOTES, vol.17, no.2, pp.707-721, 2016 (SCI-Expanded)

LX.   **Finite-time nonautonomous bifurcation in impulsive systems**
AKHMET M., Kashkynbayev A.
ELECTRONIC JOURNAL OF QUALITATIVE THEORY OF DIFFERENTIAL EQUATIONS, 2016 (SCI-Expanded)

LXI.   **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)

LXII.   **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)

LXIII.   **The Prevalence ofWeather Unpredictability**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.407-440, 2016 (SCI-Expanded)

LXIV.   **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)

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. **Chaotification of Impulsive Systems**
AKHMET M., Fen M. O.
REPLICATION OF CHAOS IN NEURAL NETWORKS, ECONOMICS AND PHYSICS, pp.157-181, 2016 (SCI-Expanded)

LXVIII. **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)

LXIX. **Extension of Lorenz Unpredictability**
AKHMET M., Fen M. O.
INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, vol.25, no.10, 2015 (SCI-Expanded)

LXX. **Attraction of Li-Yorke chaos by retarded SICNNs**
AKHMET M., Fen M. O.
NEUROCOMPUTING, vol.147, pp.330-342, 2015 (SCI-Expanded)

LXXI. **Generation of cyclic/toroidal chaos by Hopfield neural networks**
AKHMET M., Fen M. O.
NEUROCOMPUTING, vol.145, pp.230-239, 2014 (SCI-Expanded)

LXXII. **Extension of spatiotemporal chaos in glow discharge-semiconductor systems**
AKHMET M., RAFATOV İ., FEN M. O.
CHAOS, vol.24, no.4, 2014 (SCI-Expanded)

LXXIII. **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)

LXXIV. **Entrainment by Chaos**
AKHMET M., Fen M. O.
JOURNAL OF NONLINEAR SCIENCE, vol.24, no.3, pp.411-439, 2014 (SCI-Expanded)

LXXV. **Chaotification of Impulsive Systems by Perturbations**
AKHMET M., Fen M. O.
INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, vol.24, no.6, 2014 (SCI-Expanded)

LXXVI. **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)

LXXVII. **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)

LXXVIII. **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)

LXXIX. **Shunting inhibitory cellular neural networks with chaotic external inputs**
AKHMET M., Fen M. O.
CHAOS, vol.23, no.2, 2013 (SCI-Expanded)

LXXX. **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)

LXXXI. **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)

LXXXII. **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)

LXXXIII. **The state-dependent piecewise constant argument**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.89-104, 2011 (SCI-Expanded)

LXXXIV. **Nonlinear Hybrid Continuous/Discrete-Time Models Introduction**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.1-31, 2011 (SCI-Expanded)

LXXXV. **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)

LXXXVI. **The blood pressure distribution**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.133-174, 2011 (SCI-Expanded)

LXXXVII. **Stability of neural networks**
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NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.121-132, 2011 (SCI-Expanded)

LXXXVIII. **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)

LXXXIX. **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)

XC. **Almost periodic solutions**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.105-119, 2011 (SCI-Expanded)

XCI. **Stability**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.71-88, 2011 (SCI-Expanded)

XCII. **Integrate-and-fire biological oscillators**
Akhmet M.
NONLINEAR HYBRID CONTINUOUS/DISCRETE-TIME MODELS, vol.8, pp.175-199, 2011 (SCI-Expanded)

XCIII. **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)

XCIV. **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)

XCV. **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)

XCVI. **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)

XCVII. **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)

XCVIII. **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)

XCIX. **Differentiability Properties of Nonautonomous Systems**

Akhmet M.

PRINCIPLES OF DISCONTINUOUS DYNAMICAL SYSTEMS, pp.81-98, 2010 (SCI-Expanded)

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