Functional Differential Equations and Applications

ARIEL UNIVERSITY

Conference on Functional Differential Equations and Applications - FDEA 2014

5th Israeli Czech Workshop on Functional Differential Equations

Conference Program

SY Design

5th Israeli-Czech Workshop on Functional Differential Equations

Program

August 21

10:00	**R. Hakl** *Czech Academy of Science, Brno Branch, Brno, Czech Republic* Existence and Properties of Semi-Bounded Global Solutions to the Functional Differential Equation with Volterras Type Operators on the Real Line
11:00	**F. Minhos** *University Evora, Evora, Portugal* Localization Results and Extremal Solutions for Higher Order Functional BVPs
12:00	**M. Tvrdy** *Academy of Science, Praha, Czech Republic* (joint research with G. Monteiro and U. Hanung) Bounded convergence theorem for abstract Kurzweil-Stieltje integral
13:00 - 14:00	*Lunch*
14:00	**I. Rachunkova** *Olomouc University, Czech Republic* Nonlinear differential systems with general linear boundary conditions and impulses
15:00	**S. Padhi** *India, Masra*
16:00	**A. Domoshnitsky** *Ariel University,Israel* About nonlocal boundary value problems for functional differential equations
17:00	**K. Komoshvili and N. Puzanov** *Ariel University, Ariel Israel* Solid-State Laser Stabilization by Feedback Control in Integral Form

18:00	**R. Koplatadze** *Tbilisi State University, Tbilisi, Georgia* The specific properties of solutions of first order differential and difference equations with several delay arguments
19:00	**T. Tadumadze** *Tbilisi State University, Tbilisi, Georgia* **N. Gorgodze** *Kutaisi State University, Kutaisi, Georgia* Sensitivity Analysis for Some Classes of Delay Functional Differential Equations

August 24

10:00	**A. Rumyantsev** *Perm State University, Perm, Russia ITPS Group, Perm, Russia* Constructive Approach to the Study of the Solvability of Linear Boundary Value Problems for Functional Differential Equations
11:00	**Y. Goltser** *Ariel University, Ariel Israel* Damped Oscillatory nonlinear Systems
12:00	**I. Plaksina** *Perm state Technical University, Perm, Russia* About Positivity of the Cauchy Function for a Singular Functional Differential Equation
13:00 - 14:00	*Lunch*
14:00	**B.Brodsky** *Institute of Economics, Russian Academy of Sciences, Moscow, Russia*
15:00	**I. Volinsky** (joint work with A. Domoshnitsky) *Ariel University, Ariel Israel* About Differential Inequalities for Nonlocal Boundary Value Problems with Impulsive Delay Equations
16:00	**R. Shklyar** *Ariel University, Ariel Israel* Positivity of fundamental matrix and stability of delay systems
17:00	**S. Pati** *University of Masra, India*

Conference

Program

August 25

9:00 – 9:45	*Registration*
10:00 – 10:40	**Awerbuch-Friedlander T***, Levins R*, and Predescu M. ** **Harvard School of Public Health, Boston, MA 02445 USA* ***Bentley University, Waltham MA 0245 USA* A system of Four Difference Equations for Exploring the Dynamics of Dengue Spread, and its Control (Preliminary Studies)
10:45 - 11:25	**G. Röst** *University of Szeged, Szeged, Hungary* Large time behavior of a linear delay differential equation with asymptotically small coefficient
11:30 – 12:10	**X. Zou** *University of Western Ontario, Canada* Dirichlet problem of delayed reaction-diffusion equations involving semi-infinite intervals
12:15 – 12:55	**A. Novick-Cohen** *Technion, Haifa, Israel* Surface diffusion and mean curvature: some theory and applications

August 26

9:30 – 10:10	**A. Rumyantsev** *Perm State University, Perm, Russia ITPS Group, Perm, Russia* Constructive Study of Linear Functional Differential Equations with Distributed Delay
10:15 - 10:55	**V. Cherepennikov** *Melentiev Energy Systems Institute SB RAS, Russia* Polynomial quasisolutions method for some linear differential difference equations of mixed type
11:00 - 11:40	**I. Plaksina** *Perm National Research Polytechnic University, Perm, Russia* About solvability of the Cauchy problem for a quasilinear singular functional differential equation
11:45 – 12:20	**R. Koplatadze** *Tbilisi University, Georgia* Comparison theorems for second order linear differential equations
12:25 – 13:00	**R. Shklyar** *Technion, Haifa, Israel* Stability and Estimate of Solution to Uncertain Neutral Delay Systems
13:00 – 14:30	*Lunch*

14:30 – 15:10	**R. Hakl** *Czech Academy of Science, Brno Branch, Brno, Czech Republic*, Samuel Castillo (UBB, Chile) Existence of Global Solutions to the Linear Functional Differential Equations on the Real Half-Line
15:15 – 16:05	**T. Shaposhnikova** *Moscow State University, Moscow, Russia* Critical Parameters in Homogenization for Nonlinear Fluxes in Perforated Domains by Thin Tubes and Related Spectral Problems
16:10 – 16:55	**T. Tadumadze** *Tbilisi State University, Department of Mathematics & I. Vekua Institute of Applied Mathematics , Tbilisi, Georgia,* N.Gorgodze (Kutaisi State University, Department of Mathematics , Kutaisi, Georgia) Variation formulas of solution for a neutral functional differential equation taking into account delay function perturbation and the discontinuous initial condition
17:00 – 17:40	**F. Minhos** *School of Sciences and Technology, University of Évora, Portugal* *Research Center in Mathematics and Applications of the University of Évora* Multiplicity results for higher order differential BVPs and integral equations
17:45 – 18:25	**S. Padhi** *Masra, India*
18:30 - 19:10	**E. Shmerling** *Department of Computer Science and Mathematics,* *Ariel University Center of Samaria, Israel* System of difference equations for defining the moments of Markov order m geometric order k random variables

August 27

9:30 – 10:10	**L. Berezansky** *Ben Gurion University of the Negev, Beer-Sheva, Israel* New Global Exponential Stability Criteria for Nonlinear Delay Differential Systems with Applications to BAM Neural Networks
10:15 - 10:55	**Y. Goltser** *Department of Computer Science and Mathematics, Ariel University, Ariel, Israel* On stability of some oscillating system of integro-differential equations
11:00 – 11:40	**V. Tkachenko** *Institute of Mathematics National Academy of Sciences of Ukraine, Kiev, Ukraine* Almost periodic solutions of impulsive evolution equations
11:45 - 12:20	**A.Domoshnitsky and A.Maghakyan** *Ariel University, Israel* About nonoscillation and stability of second order delay differential equations
12:20 - 13:00	**E.Fridman** *Tel-Aviv University, Israel* Lyapunov-Based Methods for Stability and Control of Time-Delay Systems
13:00 – 14:30	*Lunch*
14:30 – 15:10	**G. Derfel** *Ben Gurion University of the Negev, Beer-Sheva, Israel* Probabilistic methods for a class of equations rescaling

15:15 – 15:55	**F. Assous** *Ariel University, Department of Mathematics and Computer Science, Ariel, Israel* I. Raichik (Bar Ilan University, Ramat Gan, Israel) A Numerical Method to Solve Maxwell.s Equations in Singular Domains with Arbitrary Data
16:00 – 16:40	**N. Cherniavskaya** *Ben Gurion University of the Negev, Beer-Sheva, Israel* and L.Shuster (Bar Ilan University, Ramat Gan, Israel) On the speed of which solutions of the Sturm-Liouville equation tend to zero
16:45 -17:30	**I. Volinsky** (joint work with S. Labovskiy) *Ariel University, Ariel, Israel* On Positivity of Green Functions for a Functional-Differential Equation
17:35 – 18:15	**D. Gamliel** *Department of Physics, Ariel University, Israel* Generalized 3-Site Cyclic Exchange
18:20 - 19:00	**K. Komoshvili and N. Puzanov** *Ariel University, Ariel Israel* Exponential Stabilization of Unstable Fix Point in an Electrochemical System by Feedback Control in Integral Form
19:05 - 19:45	**S. Labovskiy** *Moscow State University of Economics, Statistics and Informatics, Moscow, Russia* On existence of a positive solution of an homogeneous linear functional differential equation

August 28

9:30 - 10:10	**G. Agranovich** *Department of Electrical and Electronics Engineering, Faculty of Engineering, Ariel University, Ariel, Israel* and I. Halperin (Department of Electrical and Electronics Engineering, Faculty of Engineering, Ariel University, Ariel, Israel) Optimal Control with Bilinear Inequality Constraints
10:15 – 10:55	**Y. Krasnov** *Bar Ilan University, Ramat Gan, Israel* Differential equations in Algebras
11:00 – 11:40	**A. Rasin** *Ariel University, Ariel, Israel* The Bäcklund transformations for the Camassa-Holm equation.
11:45 - 12:25	**G. Kresin** *Ariel University , Israel* Criteria for Invariance of Convex Bodies for Linear Parabolic Systems
12:30 - 13:00	**S. Pati** *Masra, India*
13:00 - 14:30	*Lunch*
14:30 – 15:10	**M. Tvrdy** *Czech Academy of Science, Praha, Czech Republic* (joint research with G. Infante and M. Zima) A Topological Approach to Periodic Oscillations Related to the Liebau Phenomenon

15:15 - 15:55	**I. Rachunkova** *Olomouc University, Czech Republic* State-Dependent and Fixed-Time Impulsive BVP
16:00 - 16:40	**B. Brodsky** *Central Economics and Mathematics Institute, Russian Academy of Sciences, Moscow, Russia* Dynamical Economic Models: Existence and Stability of Equilibria
16:45 - 17:25	**S. Bunimovich** *Ariel University, Ariel, Israel* Modeling and simulation of urinary bladder carcinoma
17:30 – 18:10	**V. Plaksina** *Perm National Research Polytechnic University, Perm, Russia* About Functional Di¤erential Equation with Delay on the Real Axis
18:15 – 18:55	**G. Landsman, Sh.Yanets** *Bar Ilan University, Israel* About Sign-Constancy of Green's Functions for Impulsive Second Order Delay Equations