

**Conference Functional Differential
Equations and Applications 2019**

Program

September 22

	28 years of Drakhlin's Seminar on Functional Differential Equations
17:00- 18:00	
18:00-19:00	Ioannis Stavroulakis (Ioannina University, Greece) Oscillation of delay differential equations

September 23

9:00-10:00	Opening Ceremony
	Plenary Lectures
10:00-10:40	Rogert Nussbaum (Rutgers University, USA) Analyticity and Nonanalyticity for Solutions of Analytic Functional Differential Equations
10:40-11:20	Angela Slavova (Bulgarian Academy of Science, Sofia University, Bulgaria) and Elena Litsyn (Ben Gurion University of the Negev, Beer-Sheva, Israel) Stabilization of differential and integro-differential equations arising in nanostructures
11:20-11:30	Coffee Break
11:30-12:10	Ioannis Stavroulakis (Ioannina University, Greece) OPTIMAL OSCILLATION CONDITIONS FOR DELAY DIFFERENTIAL EQUATIONS
12:10-12:50	Vasil Martsenyuk (University of Bielsko-Biala, Poland) On stability investigation of immunity models based on lattice differential equations of population dynamics with delay
13:00-14:30	Lunch
14:30- 22:00	Excursion to the Tel-Aviv Beach and Jaffa

September 24

	10th Israeli-Czech Workshop on Functional Differential Equations – first session Chairman: Prof Andras Ronto
9:00-9:30	Gilbert Weinstein (Ariel University, Ariel, Israel), Marcus Khuri (Stony Brook University) , Yukio Matsumoto (Gakushuin University, Japan) , and Sumio Yamada (Gakushuin University, Japan) Plumbing constructions and the domain of outer communication for 5-dimensional black holes
9:30-10:00	Alexander Rasin (Ariel University, Ariel, Israel) BÄCKLUND TRANSFORMATIONS of NOVIKOV AND ASSOCIATED NOVIKOV EQUATIONS
	Chairman: Prof. Gilbert Weinstein
10:00-10:30	Gershon Kresin and Tehiya Ben Yaakov (Ariel University, Ariel, Israel) Sharp pointwise estimates for solutions of the modified Helmholtz equation
10:30-11:00	Frank Assous and Evgeny Furman (Ariel University, Ariel, Israel) Multiscale asymptotic paraxial models for approximating Vlasov-Maxwell equations
11:00-11:15	Coffe Break
	Chairman: Prof. Petr Girg
11:15-11:45	Svetlana Bunimovich (Ariel University, Ariel, Israel) On a model of cancer treatment
11:45-12:15	Tamaz Tadumadze, Tea Svanadze, Medea Iordanishvili (Javakhishvili Tbilisi State University, Tbilisi, Georgia) Delay optimization problems for some classes of functional differential equations
12:15-12:45	Zeev Frenkel (Haifa University, Israel and Ariel University, Israel)
12:45-13:10	Irina Volinsky and Marina Bershadsky (Ariel University, Ariel, Israel) Questions of stability of functional differential equations around the model of infection diseases
13:10-14:30	Lunch
14:30-15:00	Oleg Kupervasser (Ariel University, Ariel, Israel)

15:00-15:30	Iulia Mizgireva (Ariel University, Ariel, Israel) About sign-constancy of impulsive boundary value problems
15:30- 22:00	Excursion to Jerusalem

September 25

	10th Israeli-Czech Workshop on Functional Differential Equations – second session Chairman: Prof. Jiri Benedict
9:00-9:30	Petr Girg (University of West Bohemia, Pilsen, Czech Republic) On Positive Solutions for Fractional Laplacian Diffusion with Sublinear Reaction on Bounded Domains: Theory and Numerical Experiments
9:30-10:00	Robert Hakl (Czech Academy of Science, Institute of Mathematics, Brno Branch, Czech Republic) Sign-constant solutions to boundary value problems for positively homogeneous systems of functional differential equations
10:00-10:30	Andras Ronto (Czech Academy of Science, Brno Branch, Czech Republic) Constructive approach to solution of functional differential boundary value problems
10:30-11:00	Sulhan Mukhigashvili (Brno Institute of Technology, Brno, Czech Republic) THE DIRICHLET PROBLEM FOR THE FOURTH ORDER NONLINEAR ORDINARY DIFFERENTIAL EQUATIONS AT RESONANCE
11:00-11:15	Coffe Break
	10th Israeli-Czech Workshop on Functional Differential Equations – second session Chairman: Prof. Robert Hakl
11:15-11:45	Jiri Benedict (University of West Bohemia, Pilsen, Czech Republic) Estimates of the principal eigenvalue of the p -Laplacian and the p -biharmonic operator
11:45-12:15	Lukas Kotrla (University of West Bohemia, Pilsen, Czech Republic) Generalized Trigonometric Functions
12:15-12:45	Irina Astashova (Lomonosov Moscow State University, Moscow, Russia) Some notes on asymptotic behavior of singular solutions to nonlinear higher order differential equations
12:45-13:00	Ron Kappel, Shai Levi, Roman Yavich (Ariel University, Ariel, Israel). Stability of second order neutral differential equations.

13:00-14:00	Lunch
14:00-14:30	<p>Poster Section: Chairman: Prof. Alexander Domoshnitsky Poster section:</p> <p>Eshmatov Bakhtier (Mathematics and Informatics Department, Branch of Russian State Univevrsity of Petroleum and Gaz named after Gubkin, Tashkent, Uzbekistan)</p> <p>Dzhalladova Irada (KMIB KNEU, Kyiv, Ukraine), Batechko Nina(NUBIP, Kyiv, Ukraine) Gladka Julija (KMIB KNEU, Kyiv, Ukraine)</p> <p>SYSTEM ANYLISES IN INFORMATION SECURITY</p> <p>Dan Gamliel (Ariel University, Ariel, Israel)</p> <p>Pymirat Gurbatov (International University for the Humanities and Development, Turkmenistan)</p> <p>Dvir Ross (Ariel University, Ariel, Israel) Probabilistic and statistical analysis of the menstrual cycle in Jewish religious laws aspect</p> <p>Shirel Shemesh (Ariel University, Ariel, Israel) Stabilization of rolling motion of ships by feedback delay control</p> <p>Vladimir Raichik (Ariel University, Ariel, Israel) Wronskian, Sturm theorems and sign-constancy of Green's functions for impulsive delay differential equations</p> <p>Marina Bershadsky (Ariel University, Ariel, Israel) About stability of stationary points in the model of infection deseases</p> <p>Olga Pinhasov (Ariel University, Ariel, Israel) About stability and regulation in testosterone model</p> <p>Anatoly Polonsky (Ariel University, Ariel, Israel) Stabilization by distributed control in the form of integral with infinite memory</p> <p>Ron Kapel, Shai Levy and Roman Yavich (Ariel University, Ariel, Israel) Stability of second order neutral differential equations.</p>
	<p>1st Israeli-Indian Workshop on Differential equations and Applications Chairman: Dr. Alexander Rasin</p>
14:30-15:00	Seshadev Padhi (Birla Institute of Technology, Mesra, India)
15:00-15:30	Suchitra Panigrahi (Birla Institute of Technology, Mesra, India)

15:30-16:00	T.Lazebnik, S.Yanetz, N.Aaroni (Bar Ilan University, Ramat Gan, Israel), S.Bunimovich (Ariel University, Ariel, Israel) Treatment of Bladder Cancer Using BCG Immunotherapy Mathematical Modeling
16:00-16:15	Coffe Break
	Chairman: Prof. Leonid Berezansky
16:15-16:45	Victor Tkachenko (Ukrainian Academy of Science, Kyiv, Ukraine)
16:45-17:15	Yaroslav Petrivsky (Rivne State University of Humanities, Rivne, Ukraine) Some properties of the solution of the nonlinear equation of oscillations in modeling the magnetic separation
17:15-17:45	Leonid Schaikhet (Tel-Aviv University, Tel-Aviv, Israel) New stability condition for linear stochastic differential equation with non-autonomous level of noise
17:45-18:15	Irada Dzalladova (Kyiv National Economics University, Kyiv, Ukraine) The problem of measles epidemics for national security in Ukraine: statistical analysis and mathematical model
18:15-18:30	Coffe Break
18:30-19:00	Glen Atlas (Prof., Dept. of Anesthesiology Rutgers New Jersey Medical School Newark, NJ, USA and Adjunct Clinical Prof. Dept. of Biomedical Engineering Stevens Institute of Technology Hoboken, NJ, USA) A TUTORIAL USING SUMUDU TRANSFORMS, FACTORIAL-BASED COEFFICIENT DIMINUTION, AND DISCRETE CONVOLUTION (THE CAUCHY PRODUCT) TO OBTAIN APPROXIMATE NUMERICAL SOLUTIONS OF CERTAIN LINEAR DIFFERENTIAL AND INTEGRO-DIFFERENTIAL EQUATIONS
19:00-19:30	Adrian Zalinescu (Gheorghe Asachi Technical University of Iasi, Iasi, Romania) A probabilistic approach for solving path-dependent nonlinear parabolic equations
19:30-20:00	A.Filinovskiy (Bauman Moscow State Technical University, Moscow, Russia) On the asymptotic representation to the eigenvalues of Robin spectral problem
20:00-20:30	Tatiana Korchemkina (Lomonosov Moscow State University, Moscow, Russia) On asymptotic behavior of bounded solutions to second-order differential equations with general power-law nonlinearity

September 26

	Session 1: Stability and Oscillation of Functional Differential Equations Chairman: Prof. Alexander Domoshnitsky
9:00-9:30	Denys Khusainov (National Shevchenko University, Kyiv, Ukraine) STABILITY INVESTIGATION FOR DYNAMIC SWITCHED TIME-DELAY SYSTEMS
9:30-10:00	Leonid Berezensky (Ben Gurion University of the Negev, Beer-Sheva, Israel) Stability of neutral delay differential equations
10:00-10:30	Oleksii Bychkov (SHEVCHENKO National University of Kyiv, Kyiv, Ukraine) STABILITY INVESTIGATION FOR DYNAMIC SWITCHED TIME-DELAY SYSTEMS
10:30-11:00	Gennady Demidenko (Sobolev Institute of Mathematics, Novosibirsk State University Novosibirsk, Russia) Approximate constructing projectors in the dichotomy problems
11:00-11:15	Coffe Break
	Session 2: Stability and Oscillation of Functional Differential Equations Chairman: Prof. Gennady Demidenko
11:15-11:45	Inessa Matveeva (Sobolev Institute of Mathematics, Novosibirsk State University Novosibirsk, Russia) Asymptotic properties of solutions to time-delay systems
11:45-12:15	A.Domoshnitsky (Ariel University, Ariel, Israel) Positivity-based approach to stability of delay systems
12:15-12:45	Koplatadze (Jakashvili Tbilisi State University, Vekua Institute of Applied Mathematics, Tbilisi, Georgia) Oscillation criteria for higher order linear differential equations with several delays

12:45-13:00	Natia Khachidze (Jakashvili Tbilisi State University, Tbilisi, Georgia) HIGHER ORDER DIFFERENCE EQUATION WITH PROPERTY A AND B
13:00-14:00	Lunch
	Chairman: 2nd Ariel-Perm Workshop on Applied Mathematics Prof. Seshadev Padhi
14:00-14:30	Sergey Rusakov (Perm State University, Perm, Russia) The Diffusion-Kinetic Model of the Curing Process of the Epoxy Polymer
14:30-15:00	Mikhail Chirkov (Perm State University, Perm, Russia) CONTROL WITH UNCERTAINTY OF THE IMMUNE RESPONSE IN ACUTE FORM OF INFECTIOUS DISEASE
15:00-15:30	Alexei Kannel-Belov (MIFI, Moscow, Russia and Bar Ilan University, Ramat-Gan, Israel) Sergey Malev and Roman Yavich (Ariel University, Ariel, Israel) About random splitting of the plane
15:30-16:00	Tatyana Shaposhnikova (Lomonosov Moscow State University, Moscow, Russia) A nonlocal memory term arising in transmission conditions in critical scale homogenization of a diffusion equation in a domain perforated along (n-1)- dimensional manifold with dynamic boundary conditions
16:00-16:15	Coffe Break
	Chairman: Prof. Tatyana Shaposhnikova
16:15-16:45	S.I. Peregudin (Saint Petersburg State University, Russia), E.S. Peregudina (Saint Petersburg Mining University, Russia), S.E. Kholodova (ITMO University, Saint Petersburg , Russia) Boundary value problems for partial differential equations in fluid dynamics problems
16:45-17:15	Sergey Labovskiy and Manuel Alves (Plekhanov Russian University of Economics, Moscow, Russia and Eduardo Mondlane University, Maputo, Mozambique) On the spectral problem for a self-adjoint functional differential equation of even order
17:15-17:45	Alexei Kolchev (Kazan State University, Kazan Russia) Some problems of mathematical modeling of radiophysical sounding signals
17:45-18:15	Petr Girg (University of West Bohemia, Pilsen, Czech Republic) p-Laplacian -history, mathematical models from hydrology and natural gas extractions, experiments
18:15-18:45	Vyacheslav Maksimov (Institute of Mathematics, Russian Academy of

	<p>Science, Ural Branch, Yekaterinburg, Russia)</p> <p>Feedback in inverse and control problems for time-delay systems</p>
18:45-19:15	<p>Jiri Benedict (University of West Bohemia, Pilsen, Czech Republic)</p> <p>p-Laplacian - maximum and comparison principles, uniqueness versus nonuniqueness</p>
19:15-19:45	<p>Lukas Kotrla (University of West Bohemia, Pilsen, Czech Republic)</p> <p>p-Laplacian – applications of the theory to mathematical models</p>
20:00	Banquet