



INTERNATIONAL CONFERENCE ON
Applied and Pure Mathematics

IAȘI, ROMANIA
November 1–3, 2013

SCIENTIFIC PROGRAMME

<http://math.etc.tuiasi.ro/apm2013/>

SCIENTIFIC PROGRAMME

Friday, November 1

08:00 - 09:00 **Registration**

Plenary Session

Amphitheater M3¹

Chairman: Vitaly VOLPERT (Villeurbanne, France)

09:00 - 09:30 **Opening Ceremony**

09:30 - 10:15 **Danielle HILHORST** (Orsay, France)

On the large time behaviour of solutions of a nonlocal ordinary differential equation

10:15 - 10:35 **Coffee-Break**

10:35 - 11:20 **Antonio GAUDIELLO** (Cassino, Italy)

Ferromagnetic and ferroelectric thin multi-structures

11:20 - 12:05 **Ovidiu CĂRJĂ** (Iași, Romania)

How mild can slow controls be?

12:05 - 12:50 **Ioan I. VRABIE** (Iași, Romania)

Delay evolutions subjected to nonlocal initial conditions

13:00 - 15:00 **Lunch**

Afternoon Session I

Amphitheater M3

Chairman: Gabriel DIMITRIU (Iași, Romania)

15:00 - 15:20 **Cornelia Livia BEJAN** (Iași, Romania)

Walker manifolds and harmonicity

15:20 - 15:40 **Ahmad YOUSEFIAN DARANI** (Ardebil, Iran)

Generalizations of prime ideals in semirings

15:40 - 16:00 **Galina RUSU** (Chișinău, Moldova)

Some convergence estimates for abstract second order differential equations with two small parameters

16:00 - 16:20 **Coffee-Break**

16:20 - 16:40 **Alina GAVRILUȚ** (Iași, Romania)

Lusin theorem in Vietoris topology

16:40 - 17:00 **Ilie BURDUJAN** (Iași, Romania)

Quadratic differential systems on \mathbb{R}^3 having a semisimple derivation

17:00 - 17:20 **Anca CROITORU** (Iași, Romania)

Properties of a Gould type set-valued integral

¹ Faculty of Mechanics, Technical University, D. Mangeron Blvd., no. 43

Afternoon Session II

Amphitheater M4¹

- Chairman:** Ezio VENTURINO (Torino, Italy)
- 15:00 - 15:20** Mihai Gabriel BABUȚIA (Timișoara, Romania)
Admissibility and exponential dichotomy of dynamical systems in infinite-dimensional spaces
- 15:20 - 15:40** Elena Laura DUDAS (București, Romania)
Cooperative differential games on time scales
- 15:40 - 16:00** Anca Veronica ION (București, Romania)
On the computation of the third order terms of the series defining the center manifold for systems of delay differential equation
- 16:00 - 16:20** **Coffee-Break**
- 16:20 - 16:40** Rodica LUCA TUDORACHE (Iași, Romania)
Positive solutions for a higher-order multi-point boundary value problem
- 16:40 - 17:00** Georgeta TEODORU (Iași, Romania)
The Darboux problem associated with a Lipschitzian hyperbolic inclusion of third order
- 17:00 - 17:20** Andrei George OPRINA (București, Romania)
 L^p - weak solutions for nonlinear equations of measure-valued branching processes

Saturday, November 2

Plenary Session

Amphitheater M3

- Chairman:** Danielle HILHORST (Orsay, France)
- 09:00 - 09:45** Ezio VENTURINO (Torino, Italia)
Metapopulations and metaepidemic models
- 09:45 - 10:30** Lucian BEZNEA (București, Romania)
Markov processes on the Lipschitz boundary for the Neumann and Robin problems
- 10:30 - 10:50** **Coffee-Break**
- 10:50 - 11:35** Aurel RĂȘCANU (Iași, Romania)
Cădlâg reflected problems with elastic projections

Morning Session I

Amphitheater M3

- Chairman:** Cornelia Livia BEJAN (Iași, Romania)
- 11:40 - 12:00** Oana Carmen TĂRNICERIU (Iași, Romania)
Density models for populations of neurons

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- 12:00 - 12:20** **Paul GEORGESCU** (Iași, Romania)
Periodic oscillations and bifurcation analysis for a Cohen-Grossberg neural network model with impulsive perturbations
- 12:20 - 12:40** **Iulian STOLERIU** (Iași, Romania)
Double Hopf bifurcation with non-semisimple 1:1 resonance
- 12:40 - 13:00** **Monica PÎRVAN** (București, Romania)
Mathematical model of cloverleaf magnetic trap
- 13:00 - 15:00** **Lunch**

Morning Session II

Amphitheater M4

- Chairman:** **Lucian BEZNEA** (București, Romania)
- 11:40 - 12:00** **Ivan SECRIERU** (Chișinău, Moldova)
Construction of approximate schemes using the principle of decomposition
- 12:00 - 12:20** **Gabriel DIMITRIU** (Iași, Romania)
Reduced order modeling applied to some biological models
- 12:20 - 12:40** **Eduard ROTENSTEIN** (Iași, Romania)
A non-convex setup for differential equations driven by oblique subgradients
- 12:40 - 13:00** **Lucian MATICIUC** (Iași, Romania)
Multivalued differential equation with singular input, driven by Fréchet subdifferential operator
- 13:00 - 15:00** **Lunch**

Afternoon Session I

Amphitheater M3

- Chairman:** **Marcelina MOCANU** (Bacău, Romania)
- 15:00 - 15:20** **Silvia CORDUNEANU** (Iași, Romania)
Spaces of almost periodic functions and measures
- 15:20 - 15:40** **Bianca SATCO** (Suceava, Romania)
Several issues of measure driven equations
- 15:40 - 16:00** **Cristina Elena HREȚCANU** (Suceava, Romania)
On the geometry of Riemannian manifolds with metallic structure
- 16:00 - 16:20** **Cristina STAMATE** (Iași, Romania)
About vector integrals for multifunctions
- 16:20 - 16:40** **Adrian SANDOVICI** (Iași, Romania)
Kernel representation of Dirac structures for infinite-dimensional systems
- 16:40 - 17:00** **Sânziana CARAMAN** (Iași, Romania)
A stability result for strongly continuous semigroups on hereditary indecomposable reflexive Banach space

Afternoon Session II

Amphitheater M4

- Chairman:** Ivan SECRIERU (Chişinău, Moldova)
- 15:00 - 15:20** Marius DUREA (Iaşi, Romania)
Scalarization of constraints system in some vector optimization problems and applications
- 15:20 - 15:40** Alina Ilinca LAZU (Iaşi, Romania)
Differential inclusions with one-sided Perron multifunctions
- 15:40 - 16:00** Ciprian DELIU (Iaşi, Romania)
Data assimilation applications in hydrology
- 16:00 - 16:20** Şerban VLAD (Oradea, Romania)
Binary signals: the set of the periods of a periodic point
- 16:20 - 16:40** Ionuţ MUNTEANU (Iaşi, Romania)
Stabilization of the phase field system by boundary proportional feedbacks
- 16:40 - 17:00** Mihai Gabriel BABUŢIA (Timişoara, Romania)
Concepts of polynomial dichotomy on the half-line for evolution operators
- 17:00 - 18:30** **Break**
- 18:30 - 21:30** **Conference Dinner**

Sunday, November 3

Plenary Session

Amphitheater M3

- Chairman:** Antonio GAUDIELLO (Cassino, Italy)
- 09:00 - 09:45** Constantin ZĂLINESCU (Iaşi, Romania)
Representation of monotone operators in Banach spaces by convex functions and applications
- 09:45 - 10:30** Vitaly VOLPERT (Villeurbanne, France)
Nonlocal reaction-diffusion equations in population dynamics
- 10:30 - 10:50** **Coffee-Break**

Morning Session I

Amphitheater M3

- Chairman:** Bianca SATCO (Suceava, Romania)
- 10:50 - 11:10** Gabriela APREUTESEI (Iaşi, Romania)
Continuity properties for set multifunctions in Wijsman topology
- 11:10 - 11:30** Marcelina MOCANU (Bacău, Romania)
Gehring's lemma for Orlicz spaces on metric spaces and regularity properties of minimizers of variational integrals

- 11:30 - 11:50** **Adrian SANDOVICI** (Iași, Romania)
Regular linear relations on Banach spaces
- 11:50 - 12:10** **Cornelia Livia BEJAN** (Iași, Romania)
Ricci solitons in paracontact geometry
- 12:10 - 12:30** **Aseem BHAGWAT** (Bangalore, India)
Polygonal Numbers and Fermat's Last Theorem
- 13:00 - 15:00** **Lunch**

Morning Session II

Amphitheater M4

Chairman: **Anca Veronica ION** (București, Romania)

- 10:50 - 11:10** **Paul GEORGESCU** (Iași, Romania)
Permanence, periodicity and stability for an impulsively perturbed single species model
- 11:10 - 11:30** **Gabriela GROSU** (Iași, Romania)
Some compactness results for the solution operator of a linear evolution equation with measures
- 11:30 - 11:50** **Daniela ROȘU** (Iași, Romania)
Existence for a nonlinear delay reaction-diffusion system with mixed initial conditions
- 11:50 - 12:10** **Monica BURLICĂ** (Iași, Romania)
Viability for a semilinear reaction-diffusion system with delay
- 12:10 - 12:30** **Adem ZEJNEV** (Sofia, Bulgaria)
On asymptotic behavior of the solutions to a functional parabolic equation
- 13:00 - 15:00** **Lunch**

CLOSURE