### Anniversary Conference Faculty of Sciences - 150 years

#### **Programme**

### "Mechanics, Differential Equations and Numerical Methods"

Friday, 30.08	Presentation				
9:00 – 9:30	G. Dincă - Geometry of Sobolev Spaces with Variable Exponents and Duality Mappings				
9:30 – 10:00	L. Badea - On the Convergence of Some Hybrid Multigrid Methods for Variational Inequalities				
10:00 - 10:30	V. Busuioc - Asymptotic behavior for the alpha Navier-Stokes equations				
10:30 – 11:00	<b>A. Carabineanu -</b> The Steady Compressible Flow of an Electroconducting Fluid Past a Thin Airfoil				
11:00 – 11:30	Coffee break				
11:30 – 12:00	P. Mironescu - Critical Variational Vector-Valued Problems				
12:00 – 12:30	<b>R. Iagăr -</b> Rotationally Symmetric P-Harmonic Maps from D <sup>2</sup> to S <sup>2</sup> : Steady States, Local Existence and Finite Time Blow-up				
12:30 – 15:00	Lunch				
15:00 – 15:30	D. Polişevschi - Homogenization of Fluid Flows Through Fractured Porous Media				
15:30 – 16:00	G. Paşa - Some Problems in Oil Recovery and Hele-Shaw Displacements				
16:00 – 16:30	R. Stavre - A two Fluids Interaction Problem with Jump Conditions				
16:30 – 17:00	B. Vernescu - Flow through Permeable Membranes				
17:00 – 17:30	Coffee break				
17:30 – 18:00	M. Cocou - Implicit Evolution Inequalities, Fixed Point Methods and Applications to Contact Mechanics				
18:00 – 18:30	O. Simionescu - Guided Waves in Strained/Polarized Media				

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Suturday, 31.08	Presentation				
9:00 – 9:30	<b>C. Făciu -</b> A viscoplastic model with negative strain-rate sensitivity for the Portevin-Le Chatelier effect and relaxation oscillations for dynamical systems				
9:30 – 10:00	M. Petcu - Analysis of a Modified Parareal Algorithm for Second-Order Ordinary Differential Equations				
10:00 – 10:30	A. Căpăţînă, C. Timofte - Homogenization Results for Microcontact Elasticity Problems				
10:30 – 11:00	L. Marin - Iterative Algorithms with Relaxation for the Cauchy Problem Associated with the Modified Helmholtz Equation				
11:00 - 11:30	Coffee break				
11:30 – 12:00	S. Cleja-Ţigoiu - Free Energy Imbalence Principle in Finite Elasto-Plastic Damaged Materials				
12:00 – 12:30	I.R. Ionescu - Dynamic Visco-Plastic Crystals: an Eulerian Modeling				
12:30 – 15:00	Lunch				
15:00 – 15:30	M. Sofonea – Mixed Variational Problems with Applications in Mechanics				
15:30 – 16:00	G. Marinoschi - Variational Principles for Nonlinear Diffusion Equations				
16:00 – 16:30	<b>D. Iftimie -</b> Weak Vorticity Formulation for Incompressible Ideal Flows in Domains with Boundary				
16:30 – 17:00	C. Bereanu - Dirichlet Problems with the Mean Curvature Operator in Minkowski Space				
17:00 – 17:30	Coffee break				
17:30 – 18:00	S. Ion - Mathematical Modelling of Metals Absorption by the Root System of Plants				
18:00 – 18:30	D. Stan - The Fisher-KPP Equation with Nonlinear Fractional Diffusion				

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Sunday, 1.09	Presentation			
9:00 – 9:30	A. Cernea - On a Class of Nonlinear Differential Inclusions			
9:30 – 10:00	D. Tiba - Global Variations in Shape Optimization			
10:00 – 10:30	M. Tucsnak - Control Problems for Some Systems Modeling Fluid-Structure Interactions			
10:30 - 11:00	<b>A. Halanay -</b> Hopf Bifurcations in Models for Blood Cells' Evolution in Leukemia, Considering the Immune Response and Treatment			
11:00 – 11:30	Coffee break			
11:30 - 12:00	I. Molnar - Optimal Estimates for Liftings of Unimodular Maps			
12:00 – 12:30	D. Merluşcă - A Duality-Type Method for the Obstacle Problem			
12:30 – 15:00	Lunch			