

### Programme

#### “Mechanics, Differential Equations and Numerical Methods”

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

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

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

