

**University of Bacău, Romania  
Department of Mathematics and Informatics**

**ICMI 45**

**Program**

**International Conference on Mathematics & Informatics  
ICMI 45  
Bacău, Romania  
September 18-20, 2006**

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University of Bacău, Romania

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# **General Program**

## **Sunday, September 17**

17.00 – 20.00 Accommodation in Academic Campus

## **Monday, September 18**

09.00 – 09.30 Opening Ceremony  
09.30 – 11.00 Plenary Session - C2 Amphitheatre  
11.00 – 11.30 Coffee break  
11.30 – 13.10 Plenary Session - C2 Amphitheatre  
13.30 – 15.00 Lunch  
15.15 – 17.10 Parallel Sessions  
17.10 – 17.30 Break  
17.30 – 20.00 Parallel Sessions  
20.00 Dinner

## **Tuesday, September 19**

09.00 – 11.30 Plenary Session - C2 Amphitheatre  
11.30 – 12.00 Coffee break  
12.00 – 13.00 Parallel Sessions  
13.30 – 15.00 Lunch  
15.15 – 17.10 Parallel Sessions  
17.10 – 17.30 Break  
17.30 – 18.05 Parallel Sessions  
18.30 „Orpheus” quartet – Musical moments  
20.00 Dinner

## **Wednesday, September 20**

09.00 – 16.00 Trip to Bicz, Neamț Country, România  
16.00 – 20.00 Departure of participants

## Plenary Session

### Monday

- 09.30 – 10.00      **Radu Miron** – *To be announced*
- 10.00 – 10.30      **Solomon Marcus** – *The Mathematics of disorder*
- 10.30 – 11.00      **Octavian Agradini** - *On approximations of functions by positive linear operators*
- 11.30 – 12.00      **Dumitru Todoroi** – *Adaptable processors for knowledge based systems*
- 12.30 – 12.50      **Constantin Corduneanu** – *To be announced*
- 12.50 – 13.10      **Vasile Postolică** – *A recent survey on the efficiency*

### Tuesday

- 09.00 – 9.30      **Cabiria Andreian Cazacu** - *Distortions in quasiconformality*
- 09.30 – 10.00      **Angel Garrido** - *Additivity and monotonicity in fuzzy measures*
- 10.00 – 10.30      **Karl Hayo Siemsen** - *Neurath domain-specific visually programmed software*
- 10.30 – 11.00      **Stere Ianuş** - *Foliations, Riemannian submersion and harmonic morphisms*
- 11.00 – 11.30      **Mirela Ştefănescu, George Pinotsis** - *Hyperfields: some history and some problems*

# Section 1. INFORMATICS

## Monday

- 15.15 – 15.30 **Tomescu I.** - *On the Ratio between Partition Dimension and Metric Dimension of a Connected Graph*
- 15.35 – 15.50 **Felea V.** – *On well-founded and Stable Semantics for Logic Programs*
- 15.55 – 16.10 **Ciurea E., Dobre C.** - *Convex Time Temporally Repeated Flows*
- 16.15 – 16.30 **Costin H., Ciocoiu I., Barbu T., Rotariu C.** - *A Complete Biometric System for Person Verification and Identification through Face, Fingerprints and Voice Recognition*
- 16.35 – 16.50 **Levit V.E., Mândrescu E.** - *Partial Unimodality Properties of Independence Polynomials*
- 16.55 – 17.10 **Moldovan G., Văleanu M.** – *New integrity constraints in distributed databases*
- 17.10 - 17.30 Break**
- 17.30 – 17.45 **Croitoru C., Frăsinaru C.** - *A New Approach for Solving Satisfiability Problems*
- 17.50 – 18.05 **Vidrașcu C.** - *Concurrency Measures for Inhibitor Petri Nets*
- 18.10 – 18.25 **Lavriv M.** - *Methods and Facilities of Analog-Digital Transformation of Monte-Carlo*
- 18.30 – 18.45 **Croitoru C., Talmaciu M.**– *Structural graph search*
- 18.50 – 19.05 **Deju M., Pătruț B.** – *The Accounting System Viewed from a Multi-agent Perspective*
- 19.10 – 19.25 **Muntean M., Pătruț B.** - *System for Analysis of the Bankruptcy Risk*
- 19.30 – 19.45 **Ursache L.** - *Teaching dynamic programming method*

## Tuesday

- 12.00 – 12.15 **Mihiş A.D., Chisăliţă-Creţu C., Mihăilă A.C., Şerban C.A.** - *BOOFS – A Tool that Supports Conditional Expressions Simplification Using Boolean Functions Simplification*
- 12.20 – 12.35 **Tarţa A.M.** - *Developing Dialog Models from Task Models Using GTA Tool*
- 12.40 – 12.55 **Raischi V.**, - *Geometry for All – an Interactive Textbook*
- 13.30 - 15.00 **Lunch**
- 15.15 – 15.30 **Brudaru O.** – *Soft computing tools for prediction, optimisation and algorithm design*
- 15.35 – 15.50 **Nechita E., Crişan C.G.** - *Using Ant System in Grain Growth Simulation*
- 15.55 – 16.10 **Popa D.** - *How to Build an Adaptable Interpreter in One Day with Haskell 98*
- 16.15 – 16.30 **Pătruţ B., Furdu I.** - *Intelligent Agent for the Optimizing the Binary Decision Diagrams, using a Genetic Algorithm*
- 16.35 – 16.50 **Moldovan G., Pătruţ B.** - *Intelligent Agent for Acquisition of the Mother Tongue Vocabulary, using Weight Grammar*
- 16.55 – 17.10 **Chang C.F., Chen W., Win Z.** - *Nontrivial Monte Translational Simulation for Phenomenal Polarizer Bistable Liquid Crystal Cell*
- 17.10 - 17.30 Break**
- 17.30 – 17.45 **Chang C.F., Chen W., Win Z.** *Optimum Phenomenal Numerical Dimension for Nematic Liquid Crystal Display by Twisted Nematic Cell Gap*
- 17.50 – 18.05 **Chang C.F., Chen W., Win Z.** *Phenomenological Quasielastic Isotropic Optimisation Medium Simulation for Phenomenal Liquid Crystal*
- 18.10 – 18.25 **Lupşe V.** - *Objectual programming of an integrated system for a small and medium enterprise. Commercial subsystem*
- 18.30 – 18.45 **Dzitac I., Văleanu E.M.** – *Synchronous and asynchronous parallelization of some classical methods for system resolution*
- 18.30 – 18.45 **Crişan C.G., Nechita E.** - *Known Ant Colony Optimisation Models of the JSSP and the Competition-Balanced Systems*



## Section 2. ANALYSIS, ORDINARY and PARTIAL DIFFERENTIAL EQUATIONS

### Monday

- 15.15 – 15.30 **Popa V.** - *A unified theory of weak continuity for multifunctions.*  
- *Well-posedness of fixed point problem in orbitally complete metric spaces*
- 15.35 – 15.50 **Tănase D.** - *Approximate solving of differential equations and systems of differential equations encountered in the study of vibrations, by using spline functions and residual methods*
- 15.55 – 16.10 **Pletea A.V.** - *A coupled equation approach for solving the third order weak elliptic boundary value problem*
- 16.15 – 16.30 **Baroni M.** - *Suprema in ordered vector spaces: a constructive approach*
- 16.35 – 16.50 **Jelassi M.** - *Gabor and Weyl transforms on Chebli trimeche hypergroup*
- 16.55 – 17.10 **Sraieb N.** - *On a support of some continuous Dunkl Bessel transform of square integrable functions*
- 17.10 - 17.30 Break**
- 17.30 – 17.45 **Florea A., Popovici F.** - *A new and simple proof of the Dini's uniform convergence theorem*
- 17.50 – 18.05 **Bîrsan T.** - *Uniform continuity of the spheres in the metric spaces*
- 18.10 – 18.25 **Muraru C.V.** - *Kantorovich-Szász bivariate operators*
- 18.30 – 18.45 **Patriciu A.M.** - *A fixed point theorem for four weakly compatible mappings satisfying an implicit relation in a fuzzy metric space*
- 18.50 – 19.05 **Ramadan M.A., Lashien I.F., Zahrs W.K.** - *Quintic onpolynomial spline solutions for fourth order two-point boundary value problem*
- 19.10 – 19.25 **Ramadan M.A., Ehab A. El-Sayed** - *Partial eigenvalue assignment problem of high order control systems using orthogonality relations*
- 19.30 – 19.45 **Ramadan M.A., Abd-El-Aziz El-Sherbeiny, Mahmoud N. Sherif** - *The use of polynomial spline functions for the solution of system of second order delay differential equations*

### Tuesday

12.00 – 12.15 **Joița M.** - *Group actions on Hilbert modules over locally  $C^*$ -algebras*

12.20 – 12.35 **Costache T.L., Joița M., Zamfir M.** - *Representations associated with completely  $n$ -positive linear maps between  $C^*$ -algebras*

12.40 – 12.55 **Crînganu J.** - *Existence result for perturbation Neumann problem with  $p$ -Laplacian*

### **13.30 - 15.00 Lunch**

15.15 – 15.30 **Luca-Tudorache R.** - *Existence for a class of nonlinear differential systems*

15.35 – 15.50 **Georgescu R.M.** - *Classical bifurcation versus invariants theory for a Lotka-Volterra system*

15.55 – 16.10 **Nartea C.** - *Approximation of inertial manifolds for FitzHugh-Nagumo system*

16.15 – 16.30 **Mărghidanu D., Popovici F.** - *Generalizations of the discrete form of Milne's inequality*

16.35 – 16.50 **Mocanu M.** - *Quasiconformal pullbacks of some Newtonian functions in metric measure spaces*

16.55 – 17.10 **Burcă G., Spătaru C.** - *Certain types of vectorial integrals with values in Banach spaces*

### **17.10 - 17.30 Break**

17.30 – 17.45 **Brescan M.** - *Fuzzy bitopological spaces and fuzzy minimal structures*

17.50 – 18.05 **Nykyforchyn O.** - *On the unicity of a monad for inclusion hyperspace functor*

## Section 3. ALGEBRA, GEOMETRY AND APPLIED MATHEMATICS

### Monday

- 15.15 – 15.30 **Anastasiei M., Nimineț V.** - *Prolongations of Lie algebroids*
- 15.35 – 15.50 **Popovici C., Popovici E., Șufaru G.** – *Matlab evaluation of the  $\Lambda_k^{m,n}(x)$  coefficients for PDE solving by wavelet- Galerkin approximation*
- 15.55 – 16.10 **Baroni M.C.** - *Hybrid phylogenies with certain properties of regularity*
- 16.15 – 16.30 **Frigioiu C.** - *Nonholonomic Langrangian mechanical systems*
- 16.35 – 16.50 **Shajareh-Poursalavati N.** - *Properties of the generalized permutations*
- 16.55 – 17.10 **Mâscă I., Sabău V. S, Shimada H.** - *The L-dual of an  $(\alpha, \beta)$  Finsler Space of Order Two*
- 17.10 - 17.30 Break**
- 17.30 – 17.45 **Dincă M.** – *The generalisation of the Oppenheimer-Hadwiger inequality - A new proof of the Kantorovici inequality and the equivalence of Schwaitzer-Kantorovici-Szego-Polya inequalities - Reversed Erdos-Mordell inequality*
- 17.50 – 18.05 **Sandovici A.** – *Quasi-Fredholm relations in Hilbert spaces*
- 18.10 – 18.25 **Spătaru C., Khodabakhshi G., Burcă G.** - *Some aspects on the relation between the Navier-Stokes equations and turbulence*
- 18.30—18.45 **Khodabakhshi G., Spătaru C.** - *Development of a predictive mathematical model for Fluid-porous media interaction problems*

## Tuesday

- 12.00 – 12.15      **Petrescu A.** - *Monoids associated to  $n$ -semigroups with skew elements*
- 12.20 – 12.35      **Blănuță V., Gîrțu M.** - *The almost  $n$ -contact  $2$ - $\pi$  structure on the  $2$ -osculator bundle*
- 12.40 – 12.55      **Iftimie B., Marinescu M.** - *Admissible strategies for a portofolio problem associated to an American Option*
- 13.30 - 15.00      Lunch**
- 15.15 – 15.30      **Gîrțu M.** - *Norden structures on tangent bundle of a Finsler manifold*
- 15.35 – 15.50      **Nimineț V.** - *New results for mechanical Lagrangian control systems*
- 15.55 – 16.10      **Berceanu C.** - *Problems of colouring in the lexicographic product of graphs*
- 16.15 – 16.30      **Ardeleanu R.E.** - *The associated semigroup to a diffusion problem in a porous medium*
- 16.35 – 16.50      **Lungu O.** - *Transformations of nonlinear connections in a Finsler space*

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