

<b>Tuesday, August 20, Plenary Talks</b>	
<b>Lecture Hall A</b>	
08:45 - 09:00	Opening
<b>Chairman</b>	R. Lazarov
09:00 - 09:45	<u>B. Sendov</u> , <i>Geometry of Polynomials in Numerical Analysis</i>
09:45 - 10:30	<u>B. Bojanov</u> , <i>Cubature Formulae of Gaussian Type</i>
Coffee Break	
<b>Chairman</b>	V. Thomee
11:00 - 11:45	A. Sameh, <u>Z. Zlatev</u> , <i>Using Iterative Methods in the Solution of Sparse Linear Algebraic Systems</i>
11:45 - 12:30	<u>R. Lazarov</u> , <i>Error Control and Adaptive Meshes in Finite Volume Methods for Elliptic Problems</i>
Lunch Break	
<b>Tuesday, August 20, Parallel Sessions</b>	
<b>Lecture Hall A</b>	
<b>14:00 - 15:30</b> <i>Contributed Talks</i>	
<b>Chairman</b>	A. Andreev
14:00 - 14:30	R. Hoppe, <u>S. Petrova</u> , <i>Optimal Structural Design of Biomorphic Composite Materials</i>
14:30 - 15:00	<u>S. Fidanova</u> , <i>ACO Algorithm for MKP Using Different Heuristic Information</i>
15:00 - 15:30	<u>P. Konovski</u> , <i>About the Aposteriori Estimates of the Approximated Solutions of Some Nonlinear Equations</i>
<b>15:30 - 18:00</b> <i>Mini-Symposium on "Numerical Analysis of Problems with Blow-up Solutions"</i>	
<b>Chairman</b>	S. Dimova
15:30 - 16:00	<u>V. Dorodnitsyn</u> , <i>Symmetry Adapted Moving Mesh Schemes for the Nonlinear Schrödinger Equation</i>
Coffee Break	
16:30 - 17:00	<u>K. Patidar</u> , <i>Spline Techniques for Solving Singularly Perturbed Non-Linear Problems on Non-Uniform Grids</i>
17:00 - 17:30	R. Meyer-Spasche, <u>Variable-Coefficient Difference Schemes for Quasilinear Evolution Problems</u>
17:30 - 18:00	<u>K. Dimova</u> , S. Dimova, <i>Traveling Wave Solutions of a Class of Nonlinear Parabolic Problems</i>
18:00 - 18:30	<u>S. Dimova</u> , D. Georgieva, <i>Blow-up Solutions of a Class of Nonlocal Parabolic Problems</i>

<b>Tuesday, August 20, Parallel Sessions</b>	
<b>Lecture Hall B</b>	
<b>14:00 - 18:30</b> <i>Mini-Symposium on "Control and Uncertain Systems"</i>	
<b>Chairman</b>	V. Veliov
14:00 - 14:30	<u>P. Saint-Pierre</u> , <i>Evaluation of Crisis, Reversibility, Alert Management for Constrained Dynamical Systems Using Impulse Dynamical Systems and Numerical Issues</i>
14:30 - 15:00	<u>U. Felgenhauer</u> , <i>Optimality and Stability of Bang-Bang Type Controls</i>
15:00 - 15:30	<u>I. Chrysosoverghi</u> , <i>Discrete Methods for Optimal Control Problems</i>
15:30 - 16:00	<u>E. Farkhi</u> , <i>Convexification Rates for Minkowski Averages of Compact Sets</i>
Coffee Break	
<b>Chairman</b>	P. Saint-Pierre
16:30 - 17:00	L. Grüne, <u>P. Kloeden</u> , <i>Numerical Schemes of Higher Order for a Class of Nonlinear Control Systems</i>
17:00 - 17:30	<u>E. Crück</u> , P. Saint-Pierre, <i>Numerical Schemes for Nonlinear Impulse Target Problems under State Constraint Approximation of the Minimum Time Function</i>
17:30 - 18:00	<u>M. Konstantinov</u> , P. Petkov, <i>Sensitivity Analysis of Unitary Matrix Decompositions</i>
18:00 - 18:30	<u>M. Krastanov</u> , N. Dimitrova, <i>A Stabilizing Feedback of an Uncertain Control System</i>
<b>Tuesday, August 20, Parallel Sessions</b>	
<b>Lecture Hall C</b>	
<b>14:00 - 18:30</b> <i>Contributed Talks</i>	
<b>Chairman</b>	St. Radev
14:00 - 14:30	<u>A. Liolios</u> Ang. Liolios, St. Radev, T. Angelov, <i>A Numerical Approach for a Hemivariational Inequality Concerning the Dynamic Interaction between Adjacent Elastic Bodies</i>
14:30 - 15:00	<u>T. Angelov</u> , <i>The Kachanov Method for a Rigid-Plastic Rolling Problem</i>
15:00 - 15:30	<u>A. Andreev</u> , M. Racheva, <i>On the Postprocessing Technique for Eigenvalue Problems</i>
15:30 - 16:00	<u>H. Gu</u> , <i>The Finite Element Approximation for Minimal Surfaces Subject to the Plateau Problems</i>
Coffee Break	

<b>Tuesday, August 20, Parallel Sessions</b>	
<b>Lecture Hall C</b>	
<b>Chairman</b>	A. Liolios
16:30 - 17:00	<u>St. Radev</u> , T. Vachev, L. Tadrst, F. Onofri, A. Liolios, Ang. Liolios, <i>3D- Equations for Modeling the Propagation of Non-Axisymmetrical Capillary Liquid Jets</i>
17:00 - 17:30	<u>A. Tahiri</u> , <i>The Piecewise Constant Distributions Method</i>
17:30 - 18:00	A. Antonov, K. Georgiev, <u>E. Komsalova</u> , Z. Zlatev, <i>Implementation of Bilinear Non-Conforming Finite Elements in an Eulerian Air Pollution Model: Results Obtained by Using the Rotational Test</i>
18:00 - 18:30	A. Andreev, J. Maximov, <u>M. Racheva</u> , <i>Two Approaches to the Finite Element Analysis of the Stiffened Plates</i>
20:00	<b>RECEPTION</b>
<b>Wednesday, August 21, Plenary Talks</b>	
<b>Lecture Hall A</b>	
<b>Chairman</b>	Z. Zlatev
09:00 - 09:45	<u>O. Axellson</u> , <i>A Survey of Some Recent Results on Preconditioning Methods for Elliptic Partial Differential Equations</i>
09:45 - 10:30	J. Bramble, <u>J. Pasciak</u> , <i>An Approximation Technique for Div-Curl Systems</i>
Coffee Break	
<b>Chairman</b>	O. Axelsson
11:00 - 11:45	<u>P. Vassilevski</u> , <i>Algebraic Unstructured Finite Element Computations</i>
11:45 - 12:30	<u>R. Beauwens</u> , <i>Forgivable Variational Crimes</i>
Lunch Break	
<b>Wednesday, August 21, Parallel Sessions</b>	
<b>Lecture Hall A</b>	
<b>14:00 - 18:00</b>	<i>Mini-Symposium on "Robust Iterative Solution Methods and Applications"</i>
<b>Chairman</b>	O. Iliev
14:00 - 14:30	<u>J. Brandts</u> , <i>Solving Eigenproblems: From Arnoldi via Jacobi-Davidson to the Riccati Method</i>
14:30 - 15:00	<u>M. Larin</u> , <i>On a Multigrid Eigensolver for Linear Elasticity Problems</i>
15:00 - 15:30	W. Dörfler, O. Iliev, D. Stoyanov, <u>D. Vassileva</u> , <i>On a Multigrid Adaptive Refinement Solver for Non-Newtonian Flow in Porous Media</i>
15:30 - 16:00	<u>M. Neytcheva</u> , O. Axelsson, <i>Robust Preconditioners for Saddle Point Problems</i>
Coffee Break	

<b>Wednesday, August 21, Parallel Sessions</b>	
<b>Lecture Hall A</b>	
<b>14:00 - 18:00</b> <i>Mini-Symposium on "Robust Iterative Solution Methods and Applications"</i>	
<b>Chairman</b>	M. Neytcheva
16:30 - 17:00	<u>A. Antonov</u> , <i>Galerkin and Control Volume Finite Element Methods for Large Scale Air Pollution Simulations: A Comparison</i>
17:00 - 17:30	I. Georgiev, S. Margenov, <i>DD-MIC(0) Preconditioning of Rotated Trilinear FEM Elasticity Systems</i>
17:30 - 18:00	R. Lazarov, S. Margenov, <i>On a Two-Level Parallel MIC(0) Preconditioning of Crouzeix - Raviart Non-Conforming FEM Systems</i>
<b>Wednesday, August 21, Parallel Sessions</b>	
<b>Lecture Hall B</b>	
<b>14:00 - 18:30</b> <i>Mini-Symposium on "Control and Uncertain Systems"</i>	
<b>Chairman</b>	M. Konstantinov
14:00 - 14:30	<u>N. Nedialkov</u> , <i>An Introduction to Validated Methods for Initial Value Problems for Ordinary Differential Equations</i>
14:30 - 15:00	A. Piazzzi, <u>A. Visioli</u> , <i>An Interval Analysis Based Algorithm for Computing the Stability Margin of Uncertain Systems</i>
15:00 - 15:30	<u>J. Corres Sanz</u> , P. Gil Izco, <i>State Observer Design with Guaranteed Bounds Using Affine Arithmetics</i>
15:30 - 16:00	<b>Poster Session</b> <u>P. Ilieva</u> , <i>On the Numerical Integration of Set-Valued Maps</i> <u>D. Stoykov</u> , <i>Swing up and Stabilization of an Inverted Pendulum</i>
Coffee Break	
<b>Chairman</b>	U. Felgenhauer
16:30 - 17:00	<u>G. Grammel</u> , <i>Strong Elastic Constraints in Mechanics and Averaging</i>
17:00 - 17:30	<u>J. Hernández</u> , <i>A Size Distribution Model Applied to Fish Farming</i>
17:30 - 18:00	M. Krastanov, <u>V. Veliov</u> , <i>On the Stabilizability of Control Constrained Linear Systems</i>
18:00 - 18:30	Tz. Donchev, <i>Approximation of the Solution Set of a Nonconvex-Valued Differential Inclusion</i>

<b>Wednesday, August 21, Parallel Sessions</b>	
<b>Lecture Hall C</b>	
<b>14:00 - 18:30</b> <i>Contributed Talks</i>	
<b>Chairman</b>	G. Dimitriu
14:00 - 14:30	L. Jiang, <u>C. Liu</u> , <i>Applications of Weighted Compact Scheme to Curvilinear Coordinate System</i>
14:30 - 15:00	I. Popov, S. Polyakov, Yu. Karamzin, <i>High Accuracy Difference Schemes at Unstructured Triangle Grids</i>
15:00 - 15:30	I. Brayanov, I. Dimitrova, <i>Uniformly Convergent High-Order Schemes for a Two Dimensional Elliptic Reaction-Diffusion Problem with Anisotropic Coefficients</i>
15:30 - 16:00	<u>J. Kandilarov</u> , <i>Immersed Interface Method for a Reaction-Diffusion Equation with a Moving Concentrated Source</i>
Coffee Break	
<b>Chairman</b>	M. Kaschiev
16:30 - 17:00	<u>M. Nakashima</u> , <i>Unconditionally Stable Explicit Difference Schemes for the Variable Coefficients Parabolic Differential Equation (III)</i>
17:00 - 17:30	<u>G. Dimitriu</u> , <i>Parameter Estimation in Size/Age Structured Population Models Using the Moving Finite Element Method</i>
17:30 - 18:00	B. Jovanović, <u>L. Vulkov</u> , <i>On the Rate of Convergence of Difference Schemes for Elliptic Equations with Dynamical Interface Conditions or Dynamical Boundary Conditions</i>
18:00 - 18:30	B. Jovanović, <u>M. Koleva</u> , <u>L. Vulkov</u> , <i>On the Rate of Convergence of Difference Schemes for Nonlinear Parabolic Interface Problems</i>
<b>Thursday, August 22</b>	
<b>9:00 - 17:30</b> <i>EXCURSION</i>	
<b>Friday, August 23, Plenary Talks</b>	
<b>Lecture Hall A</b>	
<b>Chairman</b>	J. Pasciack
08:30 - 09:15	<u>V. Thomee</u> , <i>Maximum-Norm Estimates for Parabolic Finite Element Equations</i>
09:15 - 10:00	<u>V. Dorodnitsyn</u> , <i>Application of Lie Groups to Difference Equations</i>
10:00 - 10:45	<u>H. Neunzert</u> , <i>Is Mathematics a Really Useful Science and Even a Technology?</i>
Coffee Break	

<b>Friday, August 23, Plenary Talks</b>	
<b>Lecture Hall A</b>	
<b>Chairman</b>	R. Beauwens
11:15 - 12:00	A. Samarskii, <u>P. Vabishchevich</u> , <i>Additive Schemes for Systems of Time-Dependent Equations of Mathematical Physics</i>
12:00 - 12:45	<u>M. Mascagni</u> , <i>Stochastic Methods for Elliptic Partial Differential Equations: Avoiding Complicated Deterministic Constructs in Applications</i>
Lunch Break	
<b>Friday, August 23, Parallel Sessions</b>	
<b>Lecture Hall A</b>	
<b>14:00 - 19:00</b> <i>Mini-Symposium on "Monte Carlo and Quasi-Monte Carlo Methods"</i>	
<b>Chairman</b>	H. Sugita
14:00 - 14:30	<u>V. Alexandrov</u> , B. Liu, <i>Hybrid Monte Carlo Methods for Matrix Computation</i>
14:30 - 15:00	M. Mascagni, <u>A. Karaivanova</u> , <i>Monte Carlo Approach for Finding More than One Eigenpair</i>
15:00 - 15:30	<u>T. Gurov</u> , P. Whitlock, I. Dimov, <i>Monte Carlo and Quasi-Monte Carlo Algorithms for the Barker-Ferry Equation with Low Complexity</i>
15:30 - 16:00	R. Papancheva, I. Dimov, T. Gurov, <i>A New Class of Grid-Free Monte Carlo Algorithms for Elliptic Boundary Value Problems</i>
Coffee Break	
<b>Chairman</b>	M. Mascagni
16:30 - 17:00	<u>H. Sugita</u> , <i>Monte-Carlo Integration Using Cryptographically Secure Pseudo-Random Generator</i>
17:00 - 17:30	I. Dimov, A. Karaivanova, <u>R. Georgieva</u> , S. Ivanovska, <i>Parallel Importance Separation and Adaptive Monte Carlo Algorithms for Multiple Integrals</i>
17:30 - 18:00	<u>E. Atanassov</u> , <i>A New Efficient Algorithm for Generating the Sobol Sequences with Scrambling</i>
18:00 - 18:30	E. Atanassov, <u>M. Durtchova</u> , <i>Generating and Testing the Modified Halton Sequences</i>
18:30 - 19:00	<u>G. Lotova</u> , <i>On Some Weight Monte Carlo Methods for Investigating the Asymptotical Behaviour of Solution of the Transfer Equation</i>

<b>Friday, August 23, Parallel Sessions</b>	
<b>Lecture Hall B</b>	
<b>14:00 - 18:00</b> <i>Mini-Symposium on "Numerical Methods for Sensor Data Processing"</i>	
<b>Chairman</b>	Tz. Semerdjiev
14:00 - 14:30	<u>D. R. Bull</u> , S. G. Nikolov, P. Hill, C. Canagarajah, <i>Fusing Images in the Wavelet Domain</i>
14:30 - 15:00	<u>J. Dezert</u> , <i>Foundations for a New Theory of Plausible and Paradoxical Reasoning</i>
15:00 - 15:30	<u>L. Crovella</u> , <i>Trends in Automation for Onboard and Ground Processes in Avionics</i>
15:30 - 16:00	<u>S. Nikolov</u> , D. Bull, I. Gilchrist, <i>Gaze-Contingent Multi-Modality Displays of Multi-Layered Geographical Maps</i>
Coffee Break	
<b>Chairman</b>	D. R. Bull
16:30 - 17:00	V. Jilkov, X. Rong Li, <u>D. Angelova</u> , <i>Estimation of Markovian Jump Systems with Unknown Transition Probabilities through Bayesian Sampling</i>
17:00 - 17:30	<u>L. Mihaylova</u> , T. Lefebvre, H. Bruyninckx, K. Gadeyne, J. De Schutter, <i>Active Sensing for Robotics – A Survey</i>
17:30 - 18:00	V. Behar, <u>C. Kabakchiev</u> , <i>Digital Quadrature Demodulation of LFM Signals Obtained by Lowpass Filtering</i>
<b>Friday, August 23, Parallel Sessions</b>	
<b>Lecture Hall C</b>	
<b>14:00 - 18:30</b> <i>Contributed Talks</i>	
<b>Chairman</b>	V. Dorodnitsyn
14:00 - 14:30	<u>F. Gaspar</u> , F. Lisbona, P. Vabishchevich, <i>Finite Difference Scheme for Filtration and Consolidation Problems</i>
14:30 - 15:00	<u>A. Churbanov</u> , <i>A Unified Algorithm to Predict Both Compressible and Incompressible Flows</i>
15:00 - 15:30	<u>O. Iliev</u> , S. Tiwari, <i>A Generalized (Gridfree) Finite Difference Discretization for Elliptic Interface Problems</i>
15:30 - 16:00	<u>K. Krastev</u> , <i>A Spectral Method for Incompressible Navier-Stokes Equations in Moderately Complex Geometries</i>
Coffee Break	
<b>Chairman</b>	P. Vabishchevich
16:30 - 17:00	P. Frolcovič, <u>J. Geiser</u> , <i>Discretization Methods with Discrete Minimum and Maximum Property for Convection Dominated Transport in Porous Media</i>
17:00 - 17:30	E. Bazhlekova, <u>I. Bazhlekoy</u> , <i>Contour Integration of the Single and Double Layer Potentials for Axisymmetric Problems</i>

17:30 - 18:00	O. Chuluunbaatar, <u>M. Kaschiev</u> , V. Kaschieva, S. Vinitzky, <i>Kantorovich Method for Solving the Multi-Dimensional Eigenvalue and Scattering Problems of Schrödinger Equation</i>
18:00 - 18:30	<u>N. Elkin</u> , <i>Numerical Solution of Large Nonhermitian Eigenvalue Problem Arising from Model of Vertical Cavity Surface Emitting Laser Array</i>
<b>19:30</b>	<b>CONFERENCE DINNER</b>
<b>Saturday, August 24, Parallel Sessions</b>	
<b>Lecture Hall A</b>	
<b>09:00 - 12:00</b>	<i>Mini-Symposium on "Numerical Methods for Sensor Data Processing"</i>
<b>Chairman</b>	J. Dezert
09:00 - 09:30	<u>I. Simeonova</u> , Tz. Semerdjiev, <i>About the Specifics of the IMM Algorithm Design</i>
09:30 - 10:00	<u>A. Tchamova</u> , Tz. Semerdjiev, <i>Target Behavior Tendency Estimation Using Fuzzy Logic</i>
10:00 - 10:30	L. Bojilov, K. Alexiev, P. Konstantinova, <i>An Accelerated IMM-JPDA Algorithm for Tracking Multiple Manoeuvring Targets in Clutter</i>
10:30 - 11:00	<u>I. Garvanov</u> , V. Behar, C. Kabakchiev, <i>CFAR Processors in Pulse Jamming</i>
11:00 - 11:30	<u>M. Ivanova</u> , B. Vassileva, <i>Statistical Classifier of Radar Returns</i>
11:30 - 12:00	E. Djerasi, <u>P. Konstantinova</u> , <i>Tracking Algorithms Represented as Classes</i>
<b>Saturday, August 24, Parallel Sessions</b>	
<b>Lecture Hall B</b>	
<b>09:00 - 12:00</b>	<i>Contributed Talks</i>
<b>Chairman</b>	V. Alexandrov
09:00 - 09:30	<u>K. Georgiev</u> , <i>An Algorithm for Parallel Implementations of an Eulerian Smog Model</i>
09:30 - 10:00	<u>T. Ostromsky</u> , Z. Zlatev, <i>Flexible Two-Level Parallel Implementation of a Large Air Pollution Model</i>
10:00 - 10:30	<u>I. Lirkov</u> , <i>Parallel Performance of a MPI Solver for 3D Elasticity Problems</i>
10:30 - 11:00	<u>G. Bencheva</u> , <i>MPI Parallel Implementation of a Generalized Marching Algorithm</i>
11:00 - 11:30	<u>V. Lazarov</u> , <i>Effectiveness Evaluation of Parallel Execution of Some Numerical Methods</i>
11:30 - 12:00	<u>B. Chanane</u> , <i>Eigenvalues of Regular Fourth Order Sturm-Liouville Problems Using Interpolation Theory (Part II)</i>
Lunch Break	
<b>13:00</b>	<b>DEPARTURE</b>