

ORAL SESSIONS

August, 29 (first day), Vrnjacka Banja
Conference room “Gruzha”, hotel “Zvezda”

SECTION 1: MATHEMATICAL MODELING IN HYDRODYNAMICS

Chairmen: Stefan Panic, Anton Zimin

15:30	Russia	Andreev V.K.	Andreev Viktor Konstantinovich	On the direct and inverse problems of a creeping motions in a thin layers
15:50	Russia	Arkhipov D.G., Khabakhpashev G.A.	Arkhipov Dmitriy Grigorevich	Mathematical modeling of gravitational waves at two-layer flow interface in a flat horizontal channel
16:10	Russia	Zimin A., Zakharov Y.	Zimin Anton	Numerical simulation of surface waves arising from underwater landslide movement
16:30	Russia	Bodiakin E.V., Peretokin S.A., Simonov K.V.	Bodiakin Evgeniy Vladimirovich	Evaluation of Seismic Hazard Using Seismic Microzonation Methods
16:50	Coffee break			
Chairmen: Yuriy Zakharov, Olga Taseiko				
17:10	Russia	Grigorieva I., Zakharov Y.N., Dolgov D.	Zakharov Yuriy Nikolaevich	Mathematical Modeling of Large Blood Vessel Aneurysm Development and Growth
17:30	Russia	Churuksaeva V., Starchenko A.	Churuksaeva Vladislava	Numerical modeling of pollution transport in a river flow
17:50	Russia	Taseiko O., Spitsyna T.P., Radovanovic D., Milosevic H.	Taseiko Olga	Biochemical Processes Of Self-Purification Model In Small Rivers
18:10	Russia	Polishchuk V.Y., Polishchuk Y.M.	Polishchuk Yuriy Mikhailovich	Forecast of dynamics of thermokarst lakes in permafrost based on geo-simulation modeling and remote sensing data
18:30	End of day			

August, 29 (first day), Vrnjacka Banja
Conference room "Morava", hotel "Zvezda"

SECTION 2: MATHEMATICAL MODELING IN MECHANICS OF SOLIDS

Chairmen: Gaukhar Ramazanova, Maxim Orlov

15:30	Russia	Khisamutdinov A.	Khisamutdinov Alfred	On approach "Successive approximations by characteristic interactions" for inverse problems of nuclear-geophysical technologies
15:50	Kazakhstan	Ramazanova G., Assilbekov B., Zhapbasbayev U., Sattinova Z.	Ramazanova Gaukhar	Modeling of Beryllia Ceramics Formation Process
16:10	Russia	Gerasimov A.V., Pashkov S.V., Khristenko Y.F.	Gerasimov Alexander Vladimirovich	Single and group strikes of high-velocity elements in a spacecrafts
16:30	Russia	Orlov M.Y., Bogomolov G.N., Orlova Y.N.	Orlov Maxim Yurevich	Studies of the behavior of ice under shock and explosive loading
16:50	Coffee break			
Chairmen: Vladica Stojanovic, Aleksandar Gerasimov				
17:10	Serbia	Milovanović G.V., Stojanović V., Kevkić T.	Stojanović Vladica	Application of the homotopy perturbations in the surface-potential-based MOSFET modeling
17:30	Serbia	Pecić L., Miodragović G., Bulatović R., Ivanović S., Aleksandrov S.	Pecić Ljiljana	Loop Bat Family Algorithm (Loop BFA) Application for Problem Solving in Numerical Optimization
17:50	Russia	Gerasimov A.V., Cherepanov R.O.	Gerasimov Alexander Vladimirovich	Tensor smooth length for SPH modelling of high speed impact
18:10	End of day			

August, 29 (first day), Vrnjacka Banja
Conference room "Goch", hotel "Zvezda"

SECTION 3: MATHEMATICAL MODELING

Chairmen: Alexander Kazakov, Yury Shornikov

15:30	Russia	Shornikov Y.V., Dostovalov D.N., Nasyrova M.S.	Shornikov Yury Vladimirovich	Specification and analysis of transients in electrical power systems using the methodology of hybrid systems
15:50	Russia	Sidelnikov O.S., Redyuk A., Fedoruk M.P., Turitsyn S.K.	Sidelnikov Oleg Sergeevich	Numerical simulation of multi-mode fiber-optic communication lines
16:10	Russia	Kazakov A., Orlov S.	Kazakov Alexander	The method of heat wave construction for nonlinear heat (porous medium) equation
16:30	Russia	Kamenshchikov L.P., Krasnov I.V.	Kamenshchikov Leonid P.	Supercomputer Modeling of Stochastic Dynamics of the Mercury Ion Array in an Optical Lattice
16:50	Coffee break			
Chairmen: Sergey Bartsev, Ivan Arandjelovic				
17:10	Russia	Bartsev S.I., Belolipetskii P., Degermendzhi A., Saltykov M.	Bartsev Sergey Igorevich	Conceptual models of switching between multi stable states in the "biosphere-climate" system
17:30	Russia	Bolodurina I., Golovatskaia E., Khanzhina N.	Bolodurina Irina	Optimal control of human capital allocation for piecewise smooth dynamic model
17:50	Kazakhstan	Muradov A.D., Seidakhmet A.Z.	Muradov Abyl Darhanovich	Modeling mechanical deformation processes of metallized polymer films irradiated by electron
18:10	End of day			

August, 29 (first day), Vrnjacka Banja
Conference room "Kopaonik", hotel "Zvezda"

SECTION 4: INFORMATION TECHNOLOGIES

Chairmen: Vladimir Barakhnin, Anna Knyazeva

15:30	Russia	Barakhnin V.B., Kozhemyakina O.Y., Zabaykin A.V., Pastushkov I.S.	Barakhnin Vladimir Borisovich	The algorithm of automated definition of genre type and stylistic coloring of the texts in Russian language
15:50	Russia	Zelenchuk A., Molorodov Y.I.	Molorodov Yurii I.	Information System for Integration of Thermophysical Property Data
16:10	Russia	Knyazeva A.A., Kolobov O.S., Turchanovsky I.Y., Ilmayurov V.O., Trubinov V.V.	Knyazeva Anna Anatolievna	Recommender system as a part of the library resources promotion
16:30	Russia	Kosyakov D.V., Guskov A., Bykhovtsev E.S.	Kosyakov Denis Viktorovich	Webometric Analysis of Russian Academic and Education Web
16:50	Coffee break			
Chairmen: Petar Milic, Oleg Zaikin				
17:10	Russia	Ryabko B.Y.	Ryabko Boris Yakovlevich	Two-Faced Processes and Pseudorandom Number Generators with Proven Properties
17:30	Serbia	Milić P.	Milić Petar	Comparative analysis of performance of open source databases in web application development
17:50	Russia	Gribanova I.A., Zaikin O.S., Kochemazov S.E., Otpuschennikov I.V., Semenov A.A.	Zaikin Oleg Sergeevich	The study of inversion problems of cryptographic hash functions from MD family using algorithms for solving Boolean satisfiability problem
18:10	Serbia	Bjelica M.	Bjelica Momcilo	Asymptotic equidistance of averages H, G, A and Q for approximately equal statistical data and moments
18:30	End of day			

August, 30 (second day), Vrnjacka Banja
Conference room “Gruzha”, hotel “Zvezda”

SECTION 1: MATHEMATICAL MODELING IN HYDRODYNAMICS

Chairmen: Amanbek Zhainakov, Igor Yeltsov

15:30	Russia	Yeltsov I.N., Eltsov T., Makarov A., Nikitenko M.	Yeltsov Igor Nikolaevich	Effect of Dielectric Permittivity Distribution in Invaded Zone on Induction Log Data
15:50	Russia	Esipov D.V., Popenov A.Y.	Popenov Alexander	The simulation of viscous flows with disperse particles in the flat channel
16:10	Kyrgyzstan	Zhainakov A., Sultangazieva R.T., Medralieva B.N.	Zhainakov Amanbek	Computational modeling of metal vapour influence on the electric arc welding
16:30	Russia	Perepechko Y., Sorokin K.	Perepechko Yury	Two-phase convection in acoustic field

16:50 **Coffee break**

Chairmen: Konstantin Ivanov, Tatyana Voronina

17:10	Russia	Zakharov Y.N., Botvenko D.V., Filatov Y.M., Li A.A., Perminov V.A.	Zakharov Yuriy Nikolaevich	Mathematical Model of Ignition of Gas-Air Mixture and Fine Coal Dust Laminar Flow
17:30	Russia	Zakharov Y.N., Nudner I.S., Geidarov N.A., Ivanov K., Semenov K.K., Stukolov S., Yushkov A.	Ivanov Konstantin	Computational Investigation of Turbulent Flow Impact on Noncohesive Soil Erosion near Foundations of Gravity Type Oil Platforms
17:50	Russia	Dekterev A.A., Dekterev A.A., Minakov A.V.	Minakov Andrey Victorovich	Numerical simulation of industrial flames
18:10	Russia	Gachenko A.S., Bychkov I., Rugnikov G.M., Hmelnov A.E.	Hmelnov Alexei Evgenievich	3-D modeling of Angara river bed

18:30 **End of day**

August, 30 (second day), Vrnjacka Banja
Conference room “Morava”, hotel “Zvezda”

SECTION 2: MATHEMATICAL MODELING IN MECHANICS OF SOLIDS

Chairmen: Sergey Golushko, Boris Semisalov

15:30	Russia	Golushko S.K.	Golushko Sergey	Composite Structures: Mathematical Modeling, Calculation and Optimization
15:50	Russia	Amelina E.V., Golushko S.K., Yurchenko A.	Amelina Evgeniya Valerevna	The problems of analysis and design of hybrid pressure vessels
16:10	Russia	Semisalov B.V., Golushko S.K.	Semisalov Boris Vladimirovich	On the Modelling and Simulation of Anisogrid Shells of Zero Gaussian Curvature with Error Control
16:30	Russia	Dimitrienko Y.I., Zakharova Y.V., Sborschikov S.V.	Zakharova Yulia Vladimirovna	Multiscale modeling of strength properties of dispersion-reinforced composite materials produced by additive technologies
16:50	Coffee break			

Chairmen: Semyon Idimeshev, Maria Varygina

17:10	Russia	Semisalov B.V. Kuzmin G.A.	Semisalov Boris Vladimirovich	Modification of Fourier Approximation for Solving Boundary Value Problems Having Singularities of Boundary Layer Type
17:30	Russia	Varygina M.	Varygina Maria	Numerical Algorithm for the Solution of Dynamic Problems in Micropolar Theory of Rods and Thin Plates
17:50	Russia	Idimeshev S., Golushko S.K., Shapeev V.P.	Idimeshev Semyon	hp-Version of Collocation and Least Residuals Method in Mechanics of Laminated Composite Plates
18:10	End of day			

August, 30 (second day), Vrnjacka Banja
Conference room "Goch", hotel "Zvezda"

SECTION 3: MATHEMATICAL MODELING

Chairmen: Azhar Mankhanova, Elena Shestakovskay

15:30	Russia	Smolekho I.V., Sadovskaya O.V., Sadovskii V.M.	Smolekho Irina Vladimirovna	Numerical Analysis of Acoustic Waves in a Liquid Crystal Taking into Account Couple-Stress Interaction
15:50	Russia	Kuropatenko V. Shestakovskaya E.	Shestakovskaya Elena	About verification of calculation methods of the shock waves
16:10	Russia	Muksimova R., Zhitnikov V.	Muksimova Roza	Approximation and Identification Errors Investigation
16:30	Kazakhstan	Mankhanova A.Y., Turegeldiyeva K.A., Sadykov R.M., Zhapbasbayev U.K., Zolotukhin A.B., Yazynina I.V., Shelyago E.V.	Mankhanova Azhar Yerlanovna	EOR Screening Using Fuzzy Logic and Comparing with the Results of Filtration Experiments (on the Example of One Kazakhstani Oil Field)
16:50	Coffee break			

SECTION 5: APPLIED MATHEMATICS

Chairmen: Biljana Zekovic, Ivan Arandjelovic

17:10	Montenegro	Zekovich B.	Zekovich Biljana	Initial consideration about tensor product of irreducible modules over n - bialgebras
17:30	Serbia	Babić R.V.	Babic Ranko V	Infinity and infinitesimal in interpretation of Fourier Transform nature
17:50	Serbia	Dmitrovic M., Draskovic D., Obradovic C.J.	Dmitrovic Mirjana	Different Types of Regression through examples
18:10	Serbia	Arandelovic I.D.	Arandelovic Ivan D.	On the Weak Admissibility on Topological Vector Spaces and its Applications in Nonlinear Analysis and Infinite Dimensional Topology
18:30	End of day			

August, 30 (second day), Vrnjacka Banja
Conference room “Kopaonik”, hotel “Zvezda”

SECTION 7: INFORMATION TECHNOLOGY IN COMMUNICATIONS

Chairmen: Hana Stefanovic, Stefan Panic

15:30	Serbia	Stefan P., Jaksic B., Spalevic P.	Panic Stefan	Analysis of communication parameters FSO channels on reception quality
15:50	Serbia	Djosic D., Radenkovic D., Milenkovic V., Jovkovic S.	Djosic Danijel	Ratio of Weibull random variable and α - μ random variable
16:10	Serbia	Stefanovic H., Milic D.	Stefanovic Hana	Implementing Simulink Low Bitrate Codec Model for VoIP
16:30	Serbia	Stefanovic M., Djosic D., Doljak V., Radenkovic D.	Stefanovic Mihajlo	Wireless communication system in the presence of Rician and Nakagami-m short term fading
16:50	Coffee break			

SECTION 6: INFORMATION TECHNOLOGIES IN MANAGEMENT

Chairmen: Sergey Smagin, Nebojsa Arsic

17:10	Russia	Grecheneva A.V., Konstantinov I.S., Kuzichkin O.R.	Grecheneva Anastasia Vladimirovna	Information processing in the diagnostics system of the musculoskeletal system based on accelerometric goniometers
17:30	Russia	Kamaev A.N., Karmanov D.A., Sukhenko V.A., Smagin S.I.	Smagin Sergey Ivanovich	Using of Synthetic Data for Testing and Debugging AUV Technical Vision Systems
17:50	Russia	Rubtsov K.A., Lazarev S., Maslakov Y.N.	Rubtsov Konstantin Anatol'evich	Technique of Formation of Panoramic Image for Stand-Alone Portable Digital Device UHDTV
18:10	Russia	Kuklin E.Y., Ushenin K.S., Byordov D.A., Sozykin A.	Sozykin Andrey	LiFlow: a workflow automation system for reproducible simulation studies
18:30	Russia	Dorofeev N.V., Kuzichkin O.R., Podmasteryev K.V.	Dorofeev Nikolai Victorovich	The improving the efficiency of the systems of the diagnostics and rehabilitation of the human spine
18:50	End of day			

August, 31 (third day), Vrnjacka Banja
Conference room “Gruzha”, hotel “Zvezda”

SECTION 6: INFORMATION TECHNOLOGIES IN MANAGEMENT

Chairmen: Natasa Kontrec, Aleksandar Valjarevic

15:30	Serbia	Kontrec N., Petrovic M., Vujakovic J., Milosevic H.	Kontrec Natasa	Implementation of Weibull’s model for determination of aircraft’s parts reliability and spare parts forecast
15:50	Montenegro	Kordic S.	Kordic Stevan	Application of Sedimentation Algorithm for Solving SAT and Max- SAT Problems
16:10	Serbia	Lazic L., Alashhb M.	Lazic Ljubomir	Software Test Case Optimization Applying Design of Experiments Methods
16:30	Serbia	Valjarevic A., Radovanovic D., Jekic T., Taseiko O., Milosevic H.	Valjarevic Aleksandar	GIS analysis of health objects and public transport in the city Belgrade
16:50	Coffee break			
Chairmen: Ivan Arandjelovic, Konstantyn Polshchykov				
17-10	Serbia	Panic S., Jaksic B., Spalevic P., Smilic M., Markovic A.	Smilic Marko	Analisis of the influence of communication parameters of FSO channels on the reception quality
17:30	Russia	Grecheneva A.V., Eremenko V.T., Kuzichkin O.R.	Grecheneva Anastasia Vladimirovna	The method of selection of key geodynamic objects
17:50	Russia	Polshchykova O., Lazarev S., Polshchykov K., Konstantinov I.S.	Polshchykov Konstantyn	Model of neuro-fuzzy prediction of confirmation timeout in a mobile ad hoc network
18:10	Russia	Moskvichev V.V., Taseiko O.	Taseiko Olga	Risks Assessment Of Industrial Region Development As Social- Natural-Technogenic System
18-30	End of day			

August, 31 (third day), Vrnjaska Banja
Conference room “Morava”, hotel “Zvezda”

SECTION 7: INFORMATION TECHNOLOGY IN COMMUNICATIONS

Chairmen: Nadezda Andreeva, Snezana Gavrilovic

15:30	Serbia	Gavrilovic S., Denic N., Korac V., Petrovic V.	Gavrilovic Snezana	Application of e-learning tools in different ways of implementation
15:50	Russia	Andreeva N.M., Pak N.I.	Andreeva Nadezhda Michailovna	Organization of Computer Science Education Process Under the Control of Road Maps in the Conditions of Information Subject Environment
16:10	Serbia	Gavrilovic S., Denic N., Korac V., Petrovic V.	Gavrilovic Snezana	Application of video conference in education and possible ways of its implementation
16:30	Russia	Markov P.V., Rodionov S.P.	Markov Pavel Vladimirovich	The Method of Fast Numerical Solutions Calculations for Seepage Equations Using Continuous Groups of Symmetries
16:50	Coffee break			
Chairmen: Danijel Djosic, Caslav Stefanovic				
17-10	Serbia	Stefan P., Spalevic P., Princevic B., Stamenkovic N.	Panic Stefan	Performance analysis of FSO transmission over H-K atmospheric channel
17:30	Serbia	Jovkovic S., Milenkovic V., Djosic D., Popovic Z.	Djosic Danijel	Ratio of product of two Nakagami-m random variables and Rician random variable
17:50	Serbia	Stefanovic C., Djosic D., Milic D., Stefanovic M.	Djosic Danijel	Level crossing rate of macrodiversity system in the presence of k- μ multipath fading, Nakagami-m multipath fading and Gamma shadowing
18:10	Serbia	Miletic A., Stefanovic H., Cirovic Z.	Miletic Ana	The development of interactive, multimedia content using a multi- platform environment
18-30	End of day			

August, 31 (third day), Vrnjacka Banja
Conference room "Goch", hotel "Zvezda"

SECTION 5: APPLIED MATHEMATICS

Chairmen: Jela Susic, Dragana Valjarevic

15:30	Montenegro	Jela Susic	Jela Susic	New space of distributions with applications to photon distribution equation in the space with an infinite absorption point
15:50	Serbia	Draskovic D., Dmitrovic M.	Draskovic Dragana	Finite difference method for solving general linear differential equations
16:10	Serbia	Kolarevic M., Radicevic B., Rajovic M., Grkovic V., Dordevic V.	Kolarevic Milan	Development of the Algorithm for the Formation of Empirical Model for the Ternary Mixture Experiments
16:30	Serbia	Valjarevic D., Ljajko E., Jovanovic T.	Valjarevic Dragana	Theory of Statistical Causality and Quasimartingales
16:50	Coffee break			
Chairmen: Ranco Babic, Anna Lempert				
17-10	Serbia	Babic R.V., Babic L.	Babic Ranko V	A new approach to representation of contours in images
17:30	Russia	Lempert A., Kazakov A.	Lempert Anna	Congruent Circles Packing into a Multi-connected Domain with Non-Euclidean Metric and its Applications in Logistics
17:50	Serbia	Stosovic D.	Stosovic Dejan	Application of actuarial mathematics in banking
18:10	End of day			

August, 31 (third day), Vrnjackska Banja
Conference room “Kopaonik”, hotel “Zvezda”

SECTION 4: INFORMATION TECHNOLOGIES

Chairmen: Boris Ryabko, Victor Kasyanov

15:30	Russia	Guskov A., Ryabko B., Selivanova I.	Ryabko Boris	Information-Theoretic Approach to Classification of Scientific Documents
15:50	Russia	Hmelnov A.E., Bychkov I., Rugnikov G.M., Gachenko A.S., Fereferov E.S.	Hmelnov Alexei Evgenievich	Methods for automation of development of information systems using specifications of database applications
16:10	Russia	Kasyanov V.N., Kasyanova E.V.	Kasyanov Victor Nikolaevich	Methods and Tools of Parallel Programming
16:30	Russia	Gruzenkin D., Chernigovskiy A.S., Tsarev R.Y.	Gruzenkin Denis	Requirements for N-version Software Modules Design and Development
16:50	Coffee break			
Chairmen: Vladimir Barakhnin, Aliya Nugumanova				
17-10	Russia	Mansurova M., Barakhnin V.B., Khibatkhanuly E., Aubakirov S., Musina A.	Barakhnin Vladimir Borisovich	Parallel Text Document Clustering based on Genetic Algorithm
17:30	Russia	Savina N., Ryabko B., Nechta I.	Ryabko Boris	Applications of Information Theory and Psychology Laws to Optimization of Internet Search
17:50	Kazakhstan	Nugumanova A., Mansurova M.E., Alimzhanov Y., Baiburin Y.	Nugumanova Aliya	Using Non-Negative Matrix Factorization for Text Segmentation
18:10	End of day			

September, 2 (fifth day), Budva
Conference centre, hotel “Mediteran”

SECTION 2: MATHEMATICAL MODELING IN MECHANICS OF SOLIDS

Chairman: Gaukhar Ramazanova, Andrey Zakharov

16:15	Russia	Zakharov A., Dimitrienko Y.I.	Zakharov Andrey	Development of Preprocessor of SIGMA Software Package for Generating Adaptive Grids
16:35	Russia	Khisamutdinov A., Velker N.	Khisamutdinov Alfred	Comparison of Imitation splitting Monte Carlo methods with DSMC ones on the problem “on flow over a flat plate”
16:55	End of day			

September, 3 (sixth day), Budva
Conference centre, hotel “Mediteran”

SECTION 3: MATHEMATICAL MODELING

Chairman: Askar Seydahmet, Yury Shornikov

16:15	Russia	Sozykin A., Epanchintsev T., Zverev V., Bersenev A.	Sozykin Andrey	Using the FEniCS Framework for Heart Simulation on Parallel Computing Systems
16:35	Kazakhstan	Gritsenko I.S., Seidakhmet A.Z., Bekbagambetov A., Gritsenko P.S.	Seydahmet Askar	Dynamical model of humanoid robot biolod type A
16:55	End of day			

September, 4 (seventh day), Budva
Conference centre, hotel “Mediteran”

SECTION 5: APPLIED MATHEMATICS

Chairman: Oleg Zaikin, Yuriy Zakharov

16:15	Russia	Kochemazov S.E., Zaikin O.S., Semenov A.A.	Zaikin Oleg Sergeevich	The comparison of different SAT encodings for the problem of search for systems of orthogonal Latin squares
16:35	Russia	Chernoskutov M.A.	Chernoskutov Mikhail Alexandrovich	Methods for High Performance Graph Processing
16:55	Conference Summary			