

**“Problems of Mathematical Physics and Mathematical Modelling”  
Conference program**

**Session “Methods of mathematical physics”**

**Session №1**

**Head: Nikolay A. Kudryashov**

**Room: K-1109**

**Time start: Thursday, 25 May, 10:00**

1. *Aksenov A.V.* Method of construction of the Riemann function for Euler–Poisson–Darboux equation
2. *Polyanin A.D., Sorokin V.G.* Nonlinear reaction-diffusion equations with delay: some theorems, exact solutions and test problems
3. *Porubov A., Antonov I.* Further progress in control of localized nonlinear waves
4. *Sergeev S.A.* Homogenization of the linearized Boussinesq-type equation with fast oscillating coefficients
5. *Bulatov V.V., Vladimirov Y.V.* INTERNAL GRAVITY WAVES IN NON-STATIONARY STRATIFIED MEDIUM
6. *Dobrokhoto S.Y., Nazaikinskii V.E., Tolchennikov A.A.* Asymptotic solutions of the linear water waves problems with localized initial data
7. *MOROZOV O.I.* Deformations and extensions of infinite-dimensional Lie algebras and integrable nonlinear equations.
8. *Kasimov A.* Asymptotic models for weakly nonlinear waves in reacting media

**Session №2**

**Head: Nikolay A. Kudryashov**

**Room: K-1109**

**Time start: Thursday, 25 May, 15:00**

1. *Polyanin A.D., Shingareva I.K.* Two new methods of numerical integration of nonlinear blow-up problems
2. *Aksenov A.V.* Fundamental solution of the generalized biharmonic equation
3. *Kashchenko S.A., Preobrazhenskaia M.M.* Asymptotics of two-dimensional toruses in the generalized Korteweg – de Vries equation
4. *Malykh M.D., Sevastianov L.A.* On an example of a system of differential equations that are integrated in Abelian functions
5. *Glyzin S.D., Kashchenko S.A., Tolbey A.O.* Families of equations modelling the Fermi-Pasta-Ulam problem
6. *Kashchenko I.S.* The behavior of solutions of an equation with a large spatially distributed control
7. *Glyzin S.D., Kolesov A.Y., Rozov N.K.* Traveling-wave solutions in continuous chains of unidirectionally coupled oscillators
8. *Kashchenko A.A.* Relaxation periodic solutions of one singular perturbed system with delay
9. *Moriakova A.R.* Solutions multistability in the Ikeda equation

## Session “Applied mechanics”

### Session №1

**Head:** Sergey Yu. Misyurin

**Room:** B-218 (Б-218)

**Time start:** Thursday, 25 May, 10:00

1. *Murashkin E.V., Radayev Y.N.* On Wave Analytical Solution of Micropolar Elasticity for a Cylinder
2. *Manzhirrov A.V., Kazakov K.E.* Axisymmetric contact problem for a rigid punch and a coated foundation with rough surfaces
3. *Bychkov P.S., Saifutdinov I.N.* Holographic Interferometry of Thin-walled Structure Distortion during the Stereolithography Process.
4. *Misyurin S.Y., Kreinin G.V.* Coordinated interaction of two hydraulic cylinders when moving large-sized objects
5. *Murashkin E.V., Radayev Y.N.* A Thermomechanical Constitutive Law in Virtue of Thermodynamic Orthogonality
6. *Savatorova V.L., Talonov A.V., Kossovich E.L.* Dispersion and anisotropy of elastic waves in fractured porous media
7. *Misyurin S.Y., Nelyubin A.P.* Multicriteria adaptation principle on example of groups of mobile robots
8. *Kukudzhanov K.V., Levitin A.L.* The healing of damage of metal under treatment high-energy pulsed electromagnetic field.

### Session №2

**Head:** Sergey Yu. Misyurin

**Room:** B-218 (Б-218)

**Time start:** Thursday, 25 May, 15:00

1. *Misyurin S.Y., Kreinin G.V.* Selecting the parameters of the power channel of the automated drive
2. *Parshin D.A., Manzhirrov A.V.* Quasistatic problems for piecewise-continuously growing solids with integral force conditions on surfaces expanding due to additional material influx
3. *Perelmuter M.N.* Application of the bridged crack model for evaluation of materials self-healing
4. *Sumskoi S.I., Sverchkov A.M., Lisanov M.V.* Mathematical modeling of water hammer with cavitation
5. *Misyurin S.Y., Kreinin G.V., Nelyubin A.P.* Dynamic design and control of a high-speed pneumatic jet actuator