

List of posters

July 3

1. **E.N. Akimova, I.I. Gorbachev, V.V. Popov.** Parallel matrix sweep algorithm for solving the multicomponent diffusion problems
2. **A.A. Alabuzhev, D.V. Lyubimov.** Resonance oscillations of a cylindrical drop
3. **S. Alexandrov, E. Lyamina.** A constitutive law for damage evolution near frictional interfaces at large plastic strains
4. **A.I. Alexandrovich, A.A. Demidova.** Solution of plane border problems of nonlinear theory of elasticity for Signorinis body
5. **A.I. Alexandrovich, A.V. Gorlova.** Research of the equations of the flat theory of elasticity for physically nonlinear model
6. **A.I. Alexandrovich, I.A. Vorobyev, V.G. Zhovnovatyuk.** The solution of some boundary-value problems for the Korteweg-de Vries equation and the sine-Gordon equation by complex analysis methods
7. **A.I. Alexandrovich, V.G. Zhovnovatyuk, I.A. Vorobyev.** The solution of several three-dimensional thermal-elasto-plastic problems for alloys with the shape memory by local functionals method
8. **O. Alikina, E. Tarunin.** Calculation of heat transfer in vortex tube
9. **V.A. Arkhipov, I.M. Vasenin, V.L. Litvinov, V.F. Trofimov, U.M. Sheremetyeva.** Influence of the bond number on a drop stability in a flow
10. **E.B. Azarov, S.A. Rumyantsev.** Mathematical model of non-stationary dynamics “the vibration machine – the electric drive” system in case of a drive from asynchronous engines with a short-circuited rotor
11. **A.V. Babushkin, A.A. Chekalkin.** Research of stress-strain state of powdered composites at multiaxial cyclic deformation
12. **G.A. Baizakova, A.K. Tomilin.** Electromagnetic management of resilient members toughness
13. **Yu.N. Bakhareva, Y.N. Radayev.** A numerical method for solution of three-dimensional problem of the perfect plasticity
14. **N.K. Balabaev, L.I. Manevitch, O.L. Manevitch, M.A. Mazo, G.C. Rutledge.** Analysis of structure and thermomechanical properties of a nanocrystalline plate
15. **D.V. Baldin, A.N. Zakhlevnykh.** Bistable transitions in ferronematics
16. **E.K. Batsyna, V.A. Dubinina, A.A. Kurkin, O.E. Poloukhina.** Nonlinear three-wave interactions of edge waves over cylindrical shelf
17. **E.K. Batsyna, V.A. Dubinina, A.A. Kurkin, O.E. Poloukhina.** Influence of alongshore currents on the process of edge wave focusing
18. **A.A. Berlin, V.G. Oshmyan, M.Yu. Shamaev, S.A. Timan.** Numerical modeling of the effect of nanoparticles' bending rigidity on the mechanical properties of filled systems
19. **I.I. Blekhman, G.E. Itkin.** Energetic and force barriers at the transitions between the stable states of dynamic systems
20. **I.I. Blekhman, V.B. Vasilkov, K.S. Yakimova.** Hydrodynamic resistance of a conic shape channel undergoing vibration
21. **A. Boudjada, J. Meinel, A. Boucekkine, S. Hamamda.** A combination of density functional theory calculations (DFT) and experimental studies: Molecular conformation in tri-iodomesitylene

22. **V. Chaikin, E. Polyakova, I. Tarasenko.** On the theory of constitutive equations for mediums with hereditary properties
23. **E.O. Chil-Akopyan, M.V. Belubekyan.** The investigation of the asymptotics for the problems of the located instability of plate with free edge
24. **A.V. Chubinskiy.** Wave propagation in a composite plate loaded by a viscous fluid
25. **B. Cvetkov, P. Voinovich.** Accuracy analysis and 2D numerical simulation of reversed wave focusing by ultrasonic wave phase conjugation
26. **V.I. Dovgan, D.A. Kitaeva, Ya.I. Rudaev.** About structure formation self-organization at loading of quasibrittle materials
27. **V.I. Dranovskij, V.S. Khoroshilov, A.P. Kovalenko, A.E. Zakrzhevskij.** Dynamics of deployment of a multilink design in orbit
28. **O.Yu. Efimova, N.A. Kudryashov.** Two Reaction-Diffusion Models Describing the Evolution of Interrelated Populations
29. **M.R. Enikeev, I.V. Penkova, O.K. Agatyan, V.A. Sergan.** The biomechanics of injuries of ankle-joint ligamentous apparatus
30. **V.A. Eremeyev, E.M. Kaidashev, A.V. Nasedkin.** Investigations of some nano-structures made of ZnO
31. **V.A. Eremeyev, A.N. Soloviev.** FEM modelling of 2D ZnO nanocrystals lattice
32. **N.V. Evlampieva, A.A. Tashkinov.** Study structured geometric and physical fields in problems of deformation of elastoplastic composites
33. **N.B. Fedosenko.** Construction analytical computational grids with given properties
34. **N.B. Fedosenko.** An approach for incompressible flow calculation based on analytical solutions
35. **A.V. Fedotov, S.D. Furta.** On stabilization of rectilinear motion of a multilink system
36. **M.Yu. Filimonov, N.A. Vaganova.** Representation of solutions of boundary-initial problems for nonlinear partial differential equations by special series
37. **V.M. Fomin, E.I. Kraus, I.I. Shabalin.** An equation of state for gas hydrates in high pressure region
38. **K.N. Gavrilova.** Gravity current on an incline plane
39. **I.V. Gnevanov.** Convective motion in plane layers with internal heat sources
40. **L.A. Golotina, L.L. Kozhevnikova.** Modeling of the rheological behavior of filled elastomers on structural grounds
41. **E.I. Golovneva, I.F. Golovnev, V.M. Fomin.** The connection of micro- and mesoscale levels at the numerical modelling of mechanical phenomena in the nanostructures
42. **Yu.G. Gordienko, E.E. Zasimchuk.** Two-stage substructure transformation of Al film as a manifestation of multi-scaling scenario
43. **M. Holschneider, M.S. Diallo, M. Kulesh, K. Kurennaya.** Elliptic properties of surface waves in wavelet domain
44. **V.A. Il'in.** Electroconvection of poorly conducting liquid in the modulated electric field at presence of charge injection
45. **E.N. Ivanov.** The problems of the mathematical modelling of some tubular bones
46. **A.A. Ivanova, N.V. Kozlov.** Influence of vibration on behaviour of light solid in rotating cavity filled with liquid
47. **B. Kahler, J. Abbott, A. Kotousov, K. Borkowski.** Strength and Longevity of Teeth Restored with Resin-Based Composites

48. **K.P. Karunakaran, R. Shringi.** Prediction of cutting forces in end milling using volumetric NC simulation
49. **A.L. Kazakov.** Some gas flows which are solutions of generalized Cauchy problem
50. **E.P. Kligman, T.I. Kligman, N. Sevodina.** Natural vibrations of elastic shell with fluid
51. **E.P. Kligman, V.P. Matveyenko, N.A. Yurlova.** Definition and optimization of the dissipative characteristics of electroelastic shells
52. **A.A. Komarova, I.V. Shirko.** The theory of limiting balance of the anisotropic loose environment
53. **V.I. Kondaurov, A.N. Lyubicheva.** Phase transitions in damaged material
54. **N. Kontchakova.** The lines of deformation field jumping in the plastic region in the Galin's problem
55. **G. Kostin, V. Saurin.** Numerical analysis of linear elasticity problems based on integro-differential approach
56. **N.A. Kovaleva, L.I. Manevitch, A.V. Savin.** Nonlinear twist dynamics of DNA macromolecule
57. **V.G. Kozlov, D.A. Polezhaev.** Experimental study of stability of vibrational liquid flow in a rotating cylinder
58. **V.G. Kozlov, A.N. Sal'nikova.** Behavior of two-liquid system in a rotating cavity subject to longitudinal vibrations
59. **D. Kubasov, V. Sikilinda, A. Polodjishnikova.** Application of biomechanically proved osteosynthesis in surgery of anterior segment of foot
60. **N.V. Kurbatova.** On a stretching-torsion of a naturally twisted rod
61. **K. Kurennaya.** Nonlinear interaction of normal elastic waves in solids
62. **N.F. Kurilskaya.** Vibrations of conductive string with classical and non-classical boundary conditions in magnetic field
63. **N.F. Kurilskaya.** On magnetostrictive vibrations of conductive string in magnetic field
64. **A.A. Kurkin, O.E. Poloukhina, I.F. Nikolkina.** Unsteady dynamics of edge waves above a shelf slowly varied along shore
65. **V.A. Kuzkin.** Analytical modeling of protoplanet cloud fragmentation
66. **N.M. Kuznetsova, N.V. Kurbatova.** On the FEM approach for a bending of a naturally twisted rod
67. **A.V. Kvanin, G.V. Kostin, V.V. Saurin.** Finding optimal parameters of a beam on elastic base under various loading
68. **T.B. Lavrova.** The properties of the plane-strain quasi-static equations for a rigid-plastic material with anisotropic hardening
69. **N.F. Lebedeva-Karlsson.** Analytical modeling shock waves in curved coordinates
70. **A.K. Lekanov, O.E. Poloukhina, A.A. Kurkin.** Anomalous continental shelf waves
71. **V.A. Levin, N.A. Lutsenko.** On influence of form of homogeneous porous fuel element on cooling process
72. **A.L. Levitin.** The influence of notches and cuts on the specimens stability under tension
73. **O.N. Lubimova.** Definition of residual pressure during making three-layers of shell on base glass and metal
74. **V. Menshykov, O. Menshykov.** Interfacial plane crack under time-harmonic loading
75. **N. Mestanzade, G. Yazici.** Model testing of offshore structures
76. **M.S. Mkrtchyan, S.M. Mhkitaryan, S.V. Verlinsky.** Stress tension of piece-wise strip with collinear system of cracks or thin insertions during antiplane and plane deformations
77. **V.V. Moshev, S.E. Evlampieva.** Model of a structural element in elastomeric composites filled with nanoparticles

78. **N.Ye. Nikitina.** Acoustoelasticity phenomenon using for in-plane stress evaluation of civil engineering structures
79. **M.A. Osipenko, Yu.I. Nyashin, S.I. Brynskikh.** The optimal biomechanics of the foot prosthesis with the variable thickness leaves
80. **N.F. Patsegon, L.N. Popova.** Autowaves in magnetic fluid
81. **M.N. Perelmuter.** Multilevel model of strength and fracture toughness of nanocomposites
82. **A. Pershakova, D. Luchinskii, A. Stefanovska, P.V.E. McClintock.** Stochastic coupled circle maps with applications to modelling of the human cardiovascular system
83. **V.E. Petrova, K.Herrmann.** Thermal fracture of a bimaterial containing internal defects
84. **E. Polyakova, V. Chaikin, O. Zuev.** On the problem of driving a soft shell along a rigid body enveloped by the shell
85. **A.N. Prokopenya.** On the stability of cylindrical precession of dynamically symmetric satellite on the elliptic orbit
86. **Yu.I. Rudnev, D.I. Borisov.** Small oscillations of ideal fluid in vessels with perforated bafflers
87. **M.A. Ryakina, E.L. Tarunin.** Convective flow in a spherical backlash in conditions of microgravity
88. **V.N. Salnikov.** Nonlinear dynamics of the systems in the Nose-Hoover environment
89. **Yu.N. Sayfutdinov, S.A. Lychev.** The dynamical reaction of a 3-layered viscoelastic shell
90. **V.A. Sementzov, V.A. Sergal', A.A. Poloishnikova, R.S. Romanov.** To the biomechanics of patella fractures fixation
91. **D.N. Sheidakov, L.M. Zubov.** Stability of a rectangular plate under biaxial tension
92. **M.I. Shmurak, V.M. Tverier, E.Y. Simanovskaya, Y.I. Nyashin.** Biomechanical model of the mamma
93. **A.Sokolov.** A new model of orthotropic incompressible nonlinear elastic material
94. **M.B. Soloviev.** Construction of analytical-numeric solutions of border problems of plane stationary flows of incompressible linear viscous fluid using finite analytical elements method
95. **Yu.P. Stefanov.** Numerical investigation of fracture and strain localization in geomaterials
96. **L.V. Stepanova.** On creep–damage coupled boundary value problems in fracture mechanics
97. **E.D. Sviageninov.** Resonance siren based on forward and backward running waves and its microwave analogue
98. **A.L. Svistkov, L.A. Komar.** Modeling of the behavior of filled elastomeric materials with regard for the influence of a filler volume fraction
99. **E.L. Tarunin.** Asymmetrical oscillations peculiarities review
100. **A.K. Tomilin.** Electromagnetic method of vibrodiagnostics of composite beam internal state
101. **T.P. Tovstik.** On the influence of friction on the Celt rattleback motion
102. **A.V. Utkin, I.F. Golovnev, V.M. Fomin.** Influence of the molecular characteristics of matter on detonation phenomena
103. **N.A. Vaganova, M.Yu. Filimonov.** Numerical simulations of heat propagation from deepen heat sources under non-plane surface with using parallel computers
104. **G.V. Vasilyeva, S.A. Rumyantsev.** Mathematical model of dynamics two-mass vibration machine
105. **S.V. Verlinsky.** Stress-deformation tension of piece-wise homogeneous elastic half-plane with system of collinear cracks or rigid insertion along with temperature impact

106. **V.A. Vershinin, V.Y. Kiryukhin, G.I. Rogozhnikov.** Biomechanics substantiation of the arising secondary deformity of dentitions
107. **M.M. Vetyukov, R.F. Nagaev, M.M. Utimishev.** The simulation of periodic processes in vibratory jaw crusher allowing for influence of crushed material
108. **I. Vulfson.** Subharmonic resonance arising due to the change of effective dissipative forces with action of polyharmonic excitation
109. **I.N. Wasserman.** Influence of Coulomb friction on oscillations of sucker rod and tubing strings in oil wells
110. **V.E. Wildemann, M.V. Polyakov, A.M. Tsipliyakov.** Elements of strength analysis of deformable systems on the basis of failure kinetics description
111. **N.P. Yaroshevich.** Numerical simulation of self-synchronization phenomenon of mechanical vibro-exciter
112. **A.N. Zakhlevnykh, O.R. Semyonova.** Orientational and magnetic structure of a ferronematic with bistable anchoring on the boundaries of a layer
113. **I.Yu. Zoubko, P.V. Trusov.** Milling balls dynamics in the mechanical alloying process and simulation of dislocation structure formation of powder particles