

List of posters

June 26 – 27

Young scientists session

1. **A.G. Kuchumov, V.A. Lokhov, Y.I. Nyashin, A.F. Churin.** Modelling of NiTi shape memory alloy clamps for optimal fracture healing
2. **M.A. Papaev.** About stability of suspension and cable-braced bridges under wind action, in the determined and stochastic statements
3. **E.K. Batsyna, O.E. Polouknina, A.A. Kurkin.** Nonlinear effects under interaction of contra-directional Stokes edge waves
4. **D. Mheryan.** On the three dimensional surface waves in an anisotropic mediums
5. **Z. Baghdasaryan.** The bending of a rectangular plate in homogeneous distributed transversal loading
6. **O.E. Khvostova, A.A. Kurkin, A.G. Chernov.** Estimation of the potential tsunami risk of the Sakhalin Island coast
7. **A.G. Chernov, O.E. Polukhina, I.V. Bezruk.** Dynamics of strongly nonlinear local disturbances in stratified ocean
8. **V. Emelyanov, K. Volkov, I. Yakimova.** Simulation of internal turbulent gas-particle flows
9. **S.R. Haqshenas, A. Zarmehri.** Chaotic analysis of two harmonically forced discontinuous systems
10. **A. Vardanyan.** Linear bending vibrations frequencies determination in magnetoelastic cylindrical shells
11. **I.V. Bezruk, D.P. Kovalev, A.A. Kurkin, K.I. Kuznetsov, O.E. Polukhina.** Experiment on edge waves registration – results of data processing
12. **N.V. Zelenova, O.E. Polukhina.** Nonlinear Dynamics of Intense Solitary Internal Waves In The Closed Basins In The Framework Of Improved two-wave model
13. **N. Zahibo, I. Nikolkina, E. Pelinovsky, A. Kurkin.** Historical Tsunamis in Lesser Antilles (Guadeloupe)
14. **R.E. Kondrashov, S.A. Korolev, A.D. Morozov.** On resonances in self-oscillating systems with two degrees of freedom
15. **M.A. Guzev, Y.G. Izrailsky, M.A. Shepelov.** Stochastic restriction of the molecular dynamics simulation
16. **V.P. Matveenکو, T.O. Nakaryakova, N.V. Sevodina.** Investigation of stress singularities at the vertex of conic bodies
17. **A.R. Arutyunyan, B.A. Zimin, Yu.V. Sudenkov.** Investigation of mechanical properties of PMMA in cyclic loading experiments using an optical-acoustic spectroscopy method
18. **M.M. Solovyov, M.Ye. Solovyov, B.S. Turov.** Molecular Dynamics of crosslinked epoxidized oligomers
19. **A.M. Solovyova, A.V. Kuznetsov.** Tidal capture in binary systems
20. **M.S. Kuyukina, I.B. Ivshina, M.A. Osipenko, Yu.I. Nyashin, O.A. Korostina.** A model of Rhodococcus-biosurfactant filtration through the oil-contaminated soil
21. **V.V. Kulyabko, A.V. Maslovskyi, A.V. Banakh.** Simulation of nonlinear oscillations and protection of modern unique buildings and structures
22. **N.I. Kluev, E.A. Solovieva.** Three-speed mathematical model of two-phases dispersive-film flow in vertical cylindrical channel
23. **A. Kukushkin, I. Kozmin.** Symmetry in problems of optimal control of a particle
24. **E.V. Glushkov, N.V. Glushkova, A.A. Yerebin, E.V. Kirillova.** Elastodynamic diffraction in waveguides with interior obstacles

25. **R.V. Kuzmenkov, M.V. Zakrzhevsky.** Rare Regular and Chaotic Attractors in the Driven Piecewise System with Repulsive Positional Forces
26. **A.V. Klokov, M.V. Zakrzhevsky.** Rare Dangerous Attractors in the Dynamical Systems with Nonlinear Suspension
27. **E. Shilvan, M.V. Zakrzhevsky.** Nonlinear Dynamics of Contactors and Valves: Multiplicity, Rare Dangerous Regimes and Control
28. **M.A. Antimonov, A.B. Freidin, L.L. Sharipova.** On various shapes of new phase inclusions and their stability
29. **I.K. Korolev, S.V. Petinov, A.B. Freidin.** FEM simulation of damage evolution including distribution of fatigue strengths
30. **R.A. Filippov, A.B. Freidin, E.N. Vilchevskaya.** Developing model of nanocomposites which take into account of manufacturing stress and multiscale nature of nanocomposites
31. **V.M. Bogomol'nyi, S.N. Rodivilov.** Theory of Primeshakedown. Prime of multilayer cylindrical shells to external loading
32. **I.E. Berinskiy.** Molecular dynamics modelling of high speed interaction of spallation and penetration processes
33. **A. Shamkin.** Motion of a particle in gravitational field of elliptic cloud
34. **V. Sukhanova, A. Sitnikov.** Fluctuation of system masses and springs
35. **E.A. Podolskaya, A.M. Kudaraova.** Simple models for description of non-close packed crystal structures
36. **N. Dvas.** Stability analysis and determination of parameters for body-centered cubic crystal lattice
37. **A. Shamkin.** Motion of a particle in gravitational field of elliptic cloud

Session PS1

1. **P.V. Volodin, A.V. Kondyurin, I.A. Morozov, A.L. Svistkov.** An investigation of stiffness of nano-layers of the polymer near carbonized surface by atomic force microscope
2. **A. Komolov, E. Lazneva.** Migration of atomic components from the surfaces of semiconductors into the conjugated organic overlayers
3. **N.F. Kurilskaya .** Non-linear vibrations of conductive string in magnetic field
4. **D. Ostermann.** Implementation of an Energy Conserving Time Stepping Algorithm into the Finite Element Program FEAP
5. **A.V. Sokolov.** The problem of pure bending of the non-linear elastic tube in the presence of inner pressure
6. **S.A. Rumyantsev, G.V. Vasilyeva, E.V. Baklanova.** Specific demonstrations of an adaptive property in two-mass vibrational transport machine
7. **A.L. Zuev, A. Viviani.** Experimental study into conditions of solutocapillary rupture of horizontal liquid layer on a solid substrate
8. **S.A. Rumyantsev, D.Y. Tarasov.** Mathematical model of vibrotransporting machine with four independent exciters
9. **L.A. Komar, A.L. Svistkov, A.V. Kondurin.** Modelling of curing reaction of epoxy in free space conditions
10. **K.S. Bormotin, A.I. Oleinikov.** Modifying Schwartzs method for computation of elastic bodies with thin elements of structure
11. **D.N. Sheidakov.** Influence of gravity force on stability of inhomogeneous layer under biaxial stress-strain
12. **S.E. Evlampieva, V.V. Moshev.** Structural modelling of relaxation and creep phenomena in elastomeric composites filled with nano-particles
13. **M.I. Karyakin , O.G. Pustovalova.** On the cavitation along the screw dislocation line in the Cosserat continuum
14. **A. Alabuzhev, D. Lyubimov.** The non-linear oscillations of non-equilibrium bubble under the linear - polarized vibrations
15. **A.V. Utkin, I.F. Golovnev, V.M. Fomin.** Influence of the thermal effect of chemical reaction on detonation phenomena
16. **P. Dyatlova, E. Polyakova, V. Chaikin.** On the finite elements method for investigation of the interaction of soft shells with solids surfaces
17. **E. Polyakova, P. Dyatlova, Kh. Abdulrazzak.** Plane deformation of a fabric extended by forces applied to its boundaries
18. **N.P. Yaroshevich, T.S. Yaroshevich.** Investigation of vibration machine starting regimes with mechanical unbalanced vibro-exciter
19. **M. Potapenko.** Unbalanced rotors slow oscillations in the presence of the disturbances of self-synchronization rezimes
20. **S. Bosiakov.** Computer modeling of surfaces of inverse velocities and three-dimensional fronts of the elastic waves, propagating from a dot non-stationary source in unlimited anisotropic medium
21. **A. Morozov .** The study of deformation losses in sliding friction
22. **V.M. Fomin, E.I. Kraus, I.I. Shabalin.** Few-parameter equation of state of the condensed matter and its application in impact problems.
23. **A.E. Buzyurkin, E.I. Kraus, Ya.L. Lukyanov.** Theoretical and an experimental research of shock-wave stressing of powdered materials energy of explosion in ampoules of preservation

24. **I.N. Wasserman.** Influence of the gas compressibility in the pump cylinder on the dynamical behavior of sucker rod strings
25. **S. A. Lychev.** Dynamic of a 3-layered spherical viscoelastic shell
26. **A.N. Lyubicheva .** 3-D Problem for the Periodic System of Asperities Sliding along Visco-elastic Foundation
27. **L. Stepanova, M. Phedina.** Solution for a crack problem in creeping damaged materials in the coupled (creep-damage) formulation
28. **L. Stepanova.** Boundary value problems for linear-fractional steady-state creep law
29. **S. Sargsyan, A. Farmanyán.** Continual Theory of Micropolar Elastic Multi-layered Thin Plates
30. **E.N. Pelinovsky, O.E. Polukhina, A.V. Slunyaev, T.G. Talipova.** Models for long internal waves with improved nonlinearity
31. **N.A. Beliaev.** Markov chain approach to stochastic elastic waves
32. **J.L. Kuznetsova , O.I. Skulskiy.** Investigation of squeezing flow of linear Maxwell fluid between two oscillating disks
33. **S. Vlase, H. Teodorescu, I. Goia, L. Scutaru, M. Vasii.** The law of mixtures how good are these approximations?
34. **D.A. Kitaeva, V.I. Kuneev, Ya. Rudaev.** The model of dynamic superplasticity based on the concept of sliding
35. **N.S. Adigamov, R.M. Sultanalieva.** Elements macrokinetics in the mechanics of rocks.
36. **A.A. Lukin, V.A. Morozov.** Fracture of solid-state dielectrics in conditions of a near-surface voltage failure of submicrosecond duration
37. **V.V. Korepanov, M.A. Kulesh, V.P. Matveyenko, M.V. Ulitin, I.N. Shardakov.** Analytical and numerical investigations of dynamic problems in the framework of asymmetric elasticity theory
38. **S. Kozhar.** Investigation of Properties of A332-type Cast Aluminium Alloy
39. **A.V. Sokolov.** The problem of pure bending of the non-linear elastic tube in the presence of inner pressure.
40. **M. Belubekyan, K. Ghazaryan, H. Mkrtychyan, P. Marzocca, C. Cormier, A. Milanese.** Localized bending waves and interface waves in elastic plates
41. **L.A. Golotina, L.L. Kozhevnikova, V.V. Moshev.** Modeling the mechanism of filled elastomer deformability reinforcement at the cost of generation of matrix bridges
42. **S. Vardanyan.** The conical pipes axial symmetric problem
43. **D. Abrarov.** Exact solvability of the general problem of classical heavy top in special L-functions
44. **H. Agalaryan.** On the plane problem of composed wedge under different boundary conditions
45. **S. Vardanyan.** The conical pipes axial symmetric problem
46. **Bouamrane Rachid .** Electric discharge in a conductor-insulator granular material

Session PS2

1. **V.P. Shakshin , V.I. Popkov, S.V. Zatsepina.** Problem of fluids flow modeling at small velocities of average motion
2. **I.V. Gnevanov, E.L. Tarunin.** Internal heat sources position influence on the convection in plane layers
3. **E. Bratchikova.** Thermocapillary convection in the layer of binary mixture with concentrated heat sources
4. **M. Kim, K. Kostarev, N. Pisarevskaya.** Peculiarities of mass transfer between a drop and a solution of surfactant in thin horizontal layer
5. **E.N. Kozhevnikov, Y.V. Kucherenko.** Domain structure in nematic liquid crystal layer under Couette flow
6. **Yu.E. Ivanova.** The perturbation method in dynamics of nonlinear elastic incompressible mediums
7. **E.A. Gerasimenko.** One two-dimensional problem on anti-plain shock deformation in a nonlinear elastic medium
8. **V.P. Matveyenko, N.A. Yurlova .** On one approach to identification of complex dynamic modules of a composite
9. **E.P.Kligman, N.A. Yurlova, M.A. Yurlov.** Application of the principal coordinate method to problems on optimization of dynamic characteristics of electroviscoelastic systems with external RLC-circuits
10. **Ya.L. Lukyanov, V.V. Pai, G.E. Kuzmin, I.V. Yakovlev.** The undisturbing electromagnetic method of research of a shock wave front in the metal powder medium.
11. **V.A. Il'in, B.L. Smorodin.** Transition to chaos in low-mode model of ideal dielectric electroconvection
12. **G.N. Albaut, M.V. Tabanyukhova.** Determination of stress concentration and Mode I Stress Intensity Factors in elements with angular cuts and openings by photoelasticity
13. **N. Kharinova, G. Albaut, J. Kanishev.** Study of stress and strain concentration in tensile rubber elements by photoelasticity
14. **M. Karpinsky, N. Kizilova .** Oscillations and equilibrium control during one-legged and two-legged standing of a human: posturography data and modified pendulum model
15. **G. Mudzhikova, E.N. Brodskaya.** Computer simulation of surfactant aggregation process in nonpolar media
16. **V.V. Kornilov, A.L. Rabinovich, N.K. Balabaev.** The Effect of Cholesterol on the Structure and Dynamics Properties of Unsaturated Lipid Bilayers: Molecular Dynamics Simulation
17. **I.E. Golovnev, E.I. Golovneva, V.M. Fomin.** The thermomechanical behavior of nanostructures. The numerical modeling on the atomic level.
18. **D.V. Filyukov, I. Yu. Gotlib, E.M. Piotrovskaya.** Molecular dynamics simulation of poly(p-xylylene) and poly(p-xylylene)+TiO₂ nanostructured systems
19. **O.K. Garishin, S.N. Lebedev, I.A. Morozov.** Modelling of interaction of a probe of an atomic force microscope and polymeric nanofilm
20. **O.C. Garishin , S.N. Lebedev , A.L. Svistkov.** Shape distortion of silicate nano-inclusions in dispersly filled polyolefines
21. **V.V. Sizov, E.N. Brodskaya, E.M. Piotrovskaya.** Molecular dynamics simulation of mechanical properties at the gas hydrate/ice interface
22. **I. Neygebauer.** Calculation of Microscopic and Macroscopic Stiffness Parameters For Graphite
23. **G. Ualiyev, A. Jomartov.** Methods of dynamic analysis of mechanisms of variable structure with geometric connections
24. **M. Yu. Filimonov.** Application of special series in proof of new theorems of existence of solutions of boundary – initial nonlinear partial differential equations problems
25. **N.A. Vaganova.** New models to computation of nonstationary thermal fields from deepen pipeline on earth surface

26. **Yu.P. Stefanov, M. Thiercelin.** Modeling of Deformation Localization and Fracture Processes in Geomaterials
27. **Yu.P. Stefanov.** Investigation of wave propagation in pressure-sensitive elastoplastic media
28. **V. Anisimov.** Limit load solution for axially compressed thin elastic transversally - isotropic and sandwich shells of revolution
29. **A.V. Kislitsin, A.V. Zaitsev.** Exact analytical solution to Lamé problem for the thick-walled transversally-isotropic combined elastic cylindrical structures
30. **P.G. Ivanochkin, A.V. Nasedkin, M.I. Chebakov.** Contact interaction analysis for two-layer cylindrical bearing by collocation and finite element methods
31. **V.A. Eremeyev, A.I. Makaryev.** On pure bending of elastic plate undergoing phase transitions
32. **V.A. Eremeyev, A.L. Konovalova.** On surface waves in elastic halfspace with non-homogeneous distributed nano-sized objects
33. **K.L. Belov, V.A. Eremeyev.** On capillary waves in fluids with micropolar surface film
34. **T. Tovstik.** On the influence of sliding on the Celt rattleback motion
35. **N.V. Vovnenko, V.A. Zimin.** Method path integration and evaluation of the functional based on lamination process stochastic
36. **N.V. Vovnenko, U.B. Sudenkov, V.A. Zimin.** Analysis dynamical problems thermoelasticity. Theory and experiment
37. **G.D. Fedorovsky, O.V. Tevnov.** Dependence of deformation and durable properties of superhigh-molecular polythene of high durability on molecular weight
38. **K.S. Ivanov.** Variational principles of mechanics in motion of body
39. **A. Sergeyev.** Quasi-equilibrium stability of a rotating flexible chain with a fluid stream inside
40. **N. Iqbal.** Open Loop Control of Lyapunov Exponents at Fixed Points of a Nonlinear Oscillator
41. **E. Sviageninov.** Standing and Running Circumferential Acoustical Waves Generating with Sonar Siren
42. **V.N. Demidov.** On time relaxation function in the formation of shock waves structure in the nonlinear maxwell media
43. **R.S. Smirnova, M.V. Zakrzhevsky.** Paradoxes of Linear Dissipation in Nonlinear Dynamics: Generation of Rare Regular and Chaotic Attractors and Dangerous Bifurcations
44. **O. Nekhamkina, M. Sheintuch.** Boundary-induced spatio-temporal complex patterns in excitable systems
45. **A. Krauklis.** On the nature of the low-frequency signals over hydrocarbon reservoir
46. **S. Verlinsky, L. Shekyan.** On one class of boundary problems of thermoelasticity for an elastic stripe with collinear sistem of cracks