

List of posters

Session PS1 (June 26)

1. **E.N. Akimova, V.V. Vasin.** Parallel iterative algorithms for solving the inverse gravity problem
2. **A.I. Alexandrovich, I.A. Vorobyev, V.G. Zhovnovatyuk.** Application of the theory of function complex variable to construction of the approached solutions of the Korteweg-de Vries equation and the sine-Gordon equation.
3. **A.I. Alexandrovich, A. A. Demidova, A.V. Gorlova.** Solutions variety-building of some physically or geometrically plane complex-variablenonlinear equations of the theory of elasticity.
4. **A.A. Burov, S.Ya. Stepanov.** Dynamics of satellites with massive points attached by tethers
5. **A.A. Bychkov, A.N. Soloviev, V.A. Eremeyev.** Parallel computational algorithms implementation for electroelasticity and acoustics problems
6. **M.R. Enikeev, V.A. Eremeyev, Eu.N. Ivanov, V.D. Sikilinda.** On the finite elements modeling of an osteosynthesis of tibia fractures with nickelide titanium implants
7. **V.A. Eremeyev, Eu.N. Ivanov, M. Nedal, V.D. Sikilinda, M.E. Timoshenko.** Modeling of person bones using a finite elements program ANSYS for preoperative planning
8. **V.A. Eremeyev, S.M. Kuzmenko.** On the phase transformations conditions in linear elastic mixtures
9. **V.A. Eremeyev, D.A. Sukhov.** On the convective stability of vertical layer of viscoelastic micropolar fluid
10. **A.V. Guba, L.M. Zubov.** Torsion of Prismatic Elastic Bodies Containing Screw Dislocations
11. **V.I. Chernishev.** The research of the dynamic of vibro-protection systems with the switches of the rigidity
12. **K.Y. Aristovich, A.M. Krivtsov.** Oscillations and nonlinear effects in nanostructural objects
13. **I.E. Berinsky.** Model of graphite crystal packing with a consideration of moment interaction
14. **O.G. Gonin, A.M. Krivtsov.** Radiation-type pressure as a counterbalance to gravitation
15. **E.A. Ivanova, N.F. Morozov.** On one approach to experimental determination of bending stiffness of nano-shells
16. **O. Loboda, A. Krivtsov.** Determination of elastic constants for 3D-nanocrystal
17. **P.V. Tkachev.** Stability loss criterions of the material with microstructure
18. **S.V. Vasilyev, A.M. Krivtsov.** Simulation of protoplanet growing
19. **S. Ananiev, J. Ozbolt.** On thermodynamically consistent formulation of isotropic damage model
20. **A.D. Beglov, R.S. Sanjarovski.** Constructions calculation non-linear theory and European codes
21. **M.A. Chmykhov, N.A. Kudryashov.** Numerical simulation of two smog propagation problems
22. **V.N. Demidov.** To one approach to calculation of internal field on the base of the acoustic measurements
23. **B.M. Dorozhko, V.M. Grinyak.** Determination of Hydrodynamic Drag from a Trajectory of Inertial Ship Motion
24. **A.A. Efimov.** Synchronization of coupled Morse oscillators — applications to control of molecular systems
25. **S.E. Evlampieva, A.L. Svistkov.** Effective properties of inclusion ensembles in the regions of arbitrary geometry
26. **S.A. Aydonin, L.A. Dmitrieva, Yu.A. Kuperin.** Nanofilter based on spin-dependent transport through the finite array of quantum dots
27. **K.N. Gavrilova.** The influence of dispersion and topography on the structure of roll waves
28. **I.M. Gitman, H. Askes, L.J. Sluys, O.L. Valls.** The concept of Representative Volume Elements for elastic, hardening and softening materials.

29. **L.A. Golotina, S.E. Evlampieva, L.L. Kozhevnikova, V.V. Moshev.** Two-scale modeling the mechanical behavior of particulate polymeric composites
30. **A.A. Ivanova, A.F. Kuzaev.** Role of viscosity in dynamics of sand - fluid system in container subject to horizontal vibrations
31. **H.-G. Jacob, D. Besdo.** Calculation of the material behaviour of a polyamide reinforced elastomer matrix
32. **M.Yu. Gutkin, A.G. Sheinerman, T.S. Argunova, E.N. Mokhov.** Elastic behavior of hollow-core dislocations in growing Crystals
33. **V.A. Il'in.** Electroconvection of poorly conducting liquid in electric field
34. **S. Kipfstuhl, D. Grigoriev, P.R. Sammonds.** Internally induced accelerated recrystallization of deep ice core samples
35. **D.A. Kitaeva, Ya.I. Rudaev.** About stability of monoaxial tension at dynamic superplasticity
36. **S.Yu. Fialko, E.K. Ankyanec.** Vibrations of the thin stiffened cylindrical shell
37. **N.N. Kizilova.** Propagation and separation of pressure waves in viscoelastic tubes filled with a liquid
38. **A.G. Knyazeva.** Diffusion by the vacancy mechanism and the variant of the diffusion creep description for the material with the large area of internal surfaces
39. **N.F. Kurilskaya.** Point symmetries of equations of vibrations of conductive string and conductive beam in non-homogeneous magnetic field
40. **A.N. Lyubicheva.** Analysis of contact and internal stresses in structurally inhomogeneous bodies
41. **P.G. Medvedev.** Application of estimate and valid steps method to geometrically nonlinear quasistatic deformation of beams
42. **P.P. Grygoryeva, A.D. Shamrovsky.** Noninvasive diagnostics of blade wheels of gas turbine engines by means of a discrete model
43. **A.V. Nasedkin.** Complete finite element modelling of piezoelectric vibratory gyroscopes
44. **A. Nasedkina.** Model of hydrodynamic influence on multi-layer coal seam for methane extraction
45. **L.B. Ryashko, I.A. Bashkirtseva, P.V. Stihin.** Stochastic sensitivity of the forced Roessler system under transition to chaos
46. **K. Melhem, Z. Liu, A. Loria, A. Youssef.** A new dynamic model for interconnected rigid bodies: application to flexible joint robot manipulators
47. **C. Cattani, A.N. Prokopenya.** On the parametric resonance in mechanical systems with dissipation
48. **N.V. Selin, V.G. Kozlov.** Mean flows of isothermal liquid in rectangular cavity under nontranslational vibrations
49. **V.G. Kozlov, D.A. Polezhaev.** The influence of translational vibration on the behaviour of centrifuged liquid layer
50. **A.V. Chigrakov, V.G. Kozlov.** Mean dynamics of liquid contained in a horizontal rotating cylinder. Low-frequency limit
51. **P. V. Krauklis, A.P. Krauklis.** Unbonded boundary determination while drilling
52. **N.P. Yaroshevich.** About the example of self-synchronization of almost similar vibro-exciter
53. **V.I. Erofeyev, N.V. Kluyeva, I.N. Soldatov.** Amplitude and power characteristics of wave modes in a layer
54. **T.P. Tovstik.** On the influence of friction on the Celt rattleback motion.
55. **A.A. Alabuzhev, D.D. Lyubimov.** Parametrical resonance of fluid drop
56. **I.N. Wasserman.** Effect of the excitation law on the fatigue longevity of sucker rod strings

57. **M.A. Chertov, A.Yu. Smolin, G.A. Sapozhnikov, S.G. Psakhie.** Influence of surface waves on interaction of impacting particle with target
58. **S.V. Astafurov, E.V. Shilko, S.G. Psakhie.** Computer-aided investigation of interfacial materials response features under complex loading conditions.
59. **A.V. Dimaki, E.V. Shilko, S.G. Psakhie.** Simulation of reaction of self-propagating high-temperature synthesis on the base of classic cellular automata approach
60. **A.I. Dmitriev, S.G. Psakhie.** About the nature of "liquefaction" effect in soil and granular media
61. **A.I. Dmitriev, S.G. Psakhie .** Investigation of deformation localization in surface layers at nanoscale level. Molecular dynamics simulation
62. **I.A. Babushkin, V.A. Demin.** Transitional convective regimes in Hele-Shaw cell; theory and experiment
63. **K. Kalnins.** Optimization for buckling loads of stiffened composite shells
64. **A. Boubertakh, I. Zerrouk, M. Benabdoun, R. Guemini, S. Hamamda.** Determination of the anisotropy of an aluminum alloy at high temperatures
65. **A. Bouyoucef, I. Zerrouk, S. Hamamda.** Cristoballite crystallizations in clay and kaolin after sintering
66. **S. Carbillat, M.L. Boubakar.** A finite strains formulation for damaged multilayered composite structures
67. **R. Guemini, I. Zerrouk, A. Boubertakh, K. Taleb, S. Hamamda.** In-Situ chemical analysis of dispersoid particles in three Al-Mg-Si alloys and their effects on recrystallisation
68. **A. Jourani, M. Dursapt, H. Hamdi, H. Zahouani.** Experimental and numeric study of the rough surfaces in elastic-plastic contact
69. **G. El, V. Khodoroskii.** Undular bore transition in fully nonlinear dispersive wave dynamics
70. **A.V. Goncharenko, Yu.A. Chernyakov.** Necking in the case of creep
71. **G.V. Kostin, V.V. Saurin.** Nonclassical variational approach for numerical analysis of linear elasticity problems
72. **V.A. Kovalev.** Problems of matching of asymptotic models in scattering of acoustic waves by elastic spherical shell

Session PS2 (June 29)

1. **Yu.N. Bakhareva, Yu.N. Radayev.** Self-similar solutions of axially-symmetric problem of the mathematical theory of plasticity
2. **V.M. Bezpechny.** Nontraditional way of constructing passive auto-balances
3. **D.S. Chernyshev.** Numeric model of dynamic damage.
4. **E.O. Chil-Akopyan, M.V. Belubekyan.** The problems of the located instability of the plate with free edge
5. **V.A. Dubinina, A.A. Kurkin, O.E. Poloukhina, A.I. Zaytsev .** Modelling of transformation of nonlinear edge waves on a shelf of the sea
6. **G.D. Fedorovsky.** About physics-mathematical modelling of deformation, damage and phase condition of saturated watery grounds under freezing and defrosting
7. **V.P. Fedotov, L.F. Spevak, T.D. Dumsheva, E.S. Zenkova, V.V. Privalova.** Numerical - analytical method for solving problems of elasticity and heat conductivity
8. **E. Glushkov, N. Glushkova, M. Golub, E. Shapar.** Resonance phenomena in layered structures with defects
9. **E. Glushkov, N. Glushkova, E. Kirillova.** Resonance properties of elastic multilayered structures and their manifestation in a transient wave motion
10. **I.V. Gnevanov, E.L. Tarunin.** Natural convection flow induced by non uniform heat sources and its stability
11. **O.V. Krylova, S.V. Sorokin.** The boundary equation method for analysis of stationary vibrations and energy flows in spatial finite and semi-infinite structures composed of tubular elements
12. **N.A. Kudryashov, I.L. Chernyavskii, A.V. Migita.** Numerical simulation of nonlinear waves described by the stochastic Kuramoto - Sivashinsky equation
13. **A.S. Kuleshov.** Elementary description of the snakeboard dynamics
14. **K.I. Kurennaya, V.I. Storozhev.** Nonlinear distortion while interacting normal P-SV-waves in cubic system lamina propagation
15. **A.A. Kurkin, N.M. Samarina, S.A. Samarin.** Modelling of local tsunami generated by underwater landslides
16. **V.A. Levin, N.A. Lutsenko.** Effect of the temperature dependence of gas viscosity when gas flowing through porous heat-evolution medium.
17. **D.V. Lobovikov.** Experimental data of a granulation in a planetary granulator
18. **E. Lyamina.** An alternative approach to plane strain bending analysis
19. **Yu.A. Lymarenko, A.D. Shamrovski.** Discrete model of a thin elastic layer
20. **O. Makarenkov.** A new conditions of a phase entrainment for self-oscillating systems with small periodic perturbations
21. **T.N. Makarova, L.V. Stepanova.** Finite difference method in a creep – damage coupled Mode III crack problem
22. **O.V. Menshykov.** Elastodynamic contact problem for coaxial penny-shaped cracks
23. **N.N. Myagkov, T.A. Shumikhin.** Critical behavior and energy dependence of mass distributions in impact fragmentation
24. **N.Ye. Nikitina.** Experimental investigation of dispersive properties of solids by ultrasonic pulse-echo method
25. **Yu.V. Obnosov, A.R. Kacimov.** Design of ultimately stable slopes of earthworks
26. **A.I. Oleinikov, K.S. Bormotin.** Regularizing parallel algorithms boundary — element calculation of elastic bodies with thin elements of structure

27. **E.N. Pelinovsky, A.A. Kurkin, N.S. Petrukhin, I.V. Kurkina, E.K. Lekanova.** The evolution of anomalous high waves in atmosphere of the Sun
28. **Yu.V. Petrov, P.A. Glebovsky.** Physico-mechanical analogies. Solid states dynamic fracture and impulse electric breakdown in view on structural-time approach
29. **M.E. Phedina, L.V. Stepanova.** Far field stress asymptotic behavior in growing creep crack problems for a damaged material
30. **L.V. Stepanova, M.E. Phedina.** An asymptotic stress analysis of Mode I crack in creeping damaged solids
31. **V.A. Chaikin, E.V. Poliakova.** On deformations of unextensible and absolutely flexible shells
32. **E.V. Poliakova, V.A. Chaikin, O.Ju. Zuev.** On variational methods for investigation of the strain-stress state of an absolute flexible elastic shell covering a rigid body
33. **A. Popov.** An influence of a prestressed inclusion on the stability of compressed and twisted cylinder.
34. **A.A. Rogovoy.** Some approach to construction of the constitutive equations for the complex media under finite deformations
35. **Yu.A. Rossikhin, M.V. Shitikova, A.A. Loktev.** Impact of a sphere upon a viscoelastic buffer embedded onto a viscoelastic plate
36. **Yu.N. Sayfutdinov, S.A. Lychev.** Non-stationary vibration of viscoelastic rod
37. **D.N. Sheidakov.** On deformation stability of a twisted, stretched and swelled hollow elastic cylinder
38. **E.V. Shilko, V.V. Ruzhich, O.P. Smekalin, S.V. Astafurov, S.G. Psakhie.** About reasons and mechanisms of displacement regime changing in the regions of seismically active faults
39. **A.Yu. Smolin, Yu.P. Stefanov, S.G. Psakhie, P.V. Makarov, E.V. Shilko, M.A. Chertov, E.P. Evtushenko.** Computer simulation of complex media behavior on the base of combined discrete-continual approach
40. **A. Sokolov.** A mechanical response of arterial wall with respect to perivascular tissue properties.
41. **M. Soloviev.** The obtaining of approximate solutions of some plane stationary tasks of Navje-Stocks equations in holomorphic functions
42. **L.N. Stadnik, S.A. Lychev.** On the dynamical problem in micropolar viscoelasticity and its application
43. **Yu.P. Stefanov.** Numerical modelling of deformation and fracture in brittle-plastic materials
44. **Eu.D. Sviageninov.** Electrodynamical and acoustical generators based on resonant revolving waves
45. **A.L. Svistkov, L.A. Komar.** Influence of the lengths of elastomeric chains on the softening degree and strength of rubbers
46. **E.L. Tarunin.** Peculiarity of asymmetrical oscillations
47. **L.A. Tkacheva.** Response of floating elastic plate on periodic external load
48. **P. Voinovich, A. Merlen.** 2-D numerical simulation of acoustic wave phase conjugation in active medium
49. **P.A. Vel'misov, S.V. Kireev.** The asymptotical solution of a nonlinear problem about the static instability of a plate in a supersonic gas flow.
50. **V.E. Wildemann, M.L. Vlasova,, A.Yu. Kuznetsov, S.Yu. Oshev.** Boundary-value problems of post-critical deformation mechanics and problems of strength analysis
51. **A.V. Il'inykh, V.E. Wildemann.** Prediction of inelastic deformation effective properties of pseudo-plastic granular composites
52. **V.L. Yakushev, A. Bajenov.** Nonlinear stability of thin shells

53. **N. Zahibo, E. Pelinovsky, A. Kurkin, A. Kozelkov.** Estimation of far-field tsunami tsunami for the coast of Caribbean basin
54. **N. Zahibo, E. Pelinovsky, T. Talipova, A. Rabinovich, A. Kurkin, I. Nikolkina.** The statistical characteristics of cyclones activity on Guadeloupe
55. **A.V. Zaitsev, Alexey S. Babkin.** Refined analysis of anisotropic cylindrical structural elements under the action of uniform internal and external lateral pressure accounting rigidity of the loading-system
56. **A.V. Zaitsev, A.V. Lukin, N.V. Trefilov.** Stochastically-structure computational generation and regularities of damage accumulation of unidirectional fibre-reinforced composites
57. **V.A. Zhornik .** Ring-shaped crack extension in cylinders under cooling
58. **A. Zobova.** On the constructing of bifurcation diagrams of Poincare-Chetaev and Smale in the problem of motion of body of revolution on the rough plane.
59. **K.P. Zolnikov, Iv.S. Konovalenko, S.G. Psakhie.** Computer simulation of nanostructure syntheses and investigation of their replies on thermal and mechanical loading
60. **A.I. Khromov, S.L. Stepanov, A.S. Anisimov.** Localization of plastic strains at flat stress
61. **B.V. Librovich, A.F. Nowakowski.** Dynamic behaviour of rotary vane engine with one, two and four work units
62. **O.N. Lubimova.** Comparison of the method physical digitization of the theory shell for the tree layer spherical shell with the analytical decision of the theory elasticity
63. **N.A. Vaganova, M.Yu. Filimonov.** Simulation and parallel computations of thermal fields of a deepen pipeline
64. **M.Yu. Filimonov, N.A. Vaganova.** On certain numeric-analytical approaches to solution of nonlinear problems of mechanics
65. **M.Yu. Vtyurin, A.K. Lyubimov.** Optimum design of structural elements for fatigue life requirement based on multipoint approximations
66. **T.P. Lyubimova, I.S. Fayzrakhmanova.** Bridgman method crystal growth under the influence of travelling magnetic field
67. **S.N. Natreba.** Geophysical Monitoring by the Method of Acoustoelectric Synchronization of Phase Transitions in a Resonator
68. **A.B. Neymark.** Variational approach to equilibrium of a nonlinear shallow shell in the presence of an obstacle
69. **Vasily V. Saurin, Georgii V. Kostin.** On possible modifications in the linear theory of elasticity
70. **O.R. Semenova, A.N. Zakhlevnykh.** Surface anchoring orientational transitions in cholesteric liquid crystals
71. **M.V. Ustinov.** Receptivity of swept attachment line boundary layer to free-stream vorticity