АННОТАЦИИ СТАТЕЙ НА АНГЛИЙСКОМ ЯЗЫКЕ

Alexandrov A.I. APPLICATION OF LOWNER'S AND LOWNER – KUFAREV'S EQUATIONS TO FINDINGS OF CONFORMAL MAPPINGS. Examples are given of applications of Lowner's equations with a discontinuons controlling function to the task of finding conformal mappings. Similar results are obtained for the Lowner – Kufarev's equation.

Keywords: Lowner's equation, Lowner – Kufarev's equation, conformal mappings.

Lev G. Sh., *Frolov A. V.* ON PROBLEM ON THE PROBABILITY OF ABSORBTION. Generalized process of multiplication for which necessary and sufficient conditions of its absorbtion are found is considered.

Keywords: moment of absorbtion, probability of absorbtion.

Mizin A.G. HYPERCOMPLEXES OF TWO-DIMENSIONAL PLANES IN PROJECTIVE SPACE P_6. A complete classification for hypercomplexes of two-dimensional planes in the six-dimensional projective space has been obtained in the first differential neighborhood and partially in the second neighborhood of the of hypercomplex's element by use of properties of the main local correspondences connected with the element. For instance, there exist twelve classes of special hypercomplexes.

Keywords: moving frame, projective space, local properties, hypercomplex of two-dimensional planes.

Fomina E.A. A CRITERION OF AN INFINITELY NARROW FIELD. In the article an example of the field, which admits linear and two-dimensional ordering, but it is not infinitely narrow field is consided. A criterion of an infinitely narrow field is formulated and proved.

Keywords: Linearly ordered fields, a positive cone, two-ordered fields.

Chekhlov A.R. ON PROJECTIVE INVARIANT SUBGROUPS OF ABELIAN GROUPS.There are chosen some types of projective invariant subgroups of abelian groups, which being fully invariant. The separable torsion-free groups in which all projective invariant subgroups are fully invariant are described.

Keywords: fully invariant subgroup, projective invariant subgroup.

Shvartsman Z.O. EDUCATIONAL AND SYSTEMATIC COMPLEX FOR FUTURE TEACHERS OF MATHEMATICS.We consider this particularity of educational and systematic complex which is connected with preparation for mathematics teachers in Tomsk state university.

Keywords: conception, mathematical, profession, teacher, system.

Yuferova G.A. ON A FAMILY OF UNIVALENT FUNCTIONS.A new example integration of the Lovner's equation with controlling function which depends on a parameter (argument) is received. It is shown that exist a function in the set of getting maps. It gives extremely function in the problem of estimate of argument of derivative for univalent conformal maps.

Keywords: Lovner's equation, external functions to estimate of argument of derivative.

Ivanova O.V., *Zelepugin S.A.* THE CONDITION OF JOINT DEFORMATION IN THE MULTICOMPONENT MIXTURE UNDER SHOCK WAVE COMPACTION. Behavior of the porous mixture placed in a cylindrical ampoule under conditions of shock wave loading is numerically investigated on the basis of multicomponent medium model. As a condition of joint deformation,

an equality of pressures in components of the mixture is chosen. Optimum parameters for obtaining the maximal density of final products are determined.

Key words: compaction, multicomponent medium, numerical simulation

Tiuleneva E. S., *Varushkina E. V.*, *Perminov A. V.* SOME LIQUID FLOWS IN WEAK ACOUSTIC FIELD. The influence of acoustic vibrations on convective liquid flow is considered. In closed rectangular cavity for Prandtl number equal 0.01 in case of inclined and vertical vibrations the influence of vibration intensivity on flow structure is studied. It is shown that for acoustic cross vibrations of plane horizontal liquid layer with lengthwise gradient of temperature some flat-parallel convective flow is generated in this layer. The stability of this flow to flat perturbations is considered.

Keywords: convection, vibrations, thermal acoustic, compressibility, convective stability.

Sakipova S. E. TO CALCULATION A PULSE PRESSURE AT ELECTRIC-DISCHARGE INFLUENCE IN A HETEROGENEOUS LIQUID. The development of pulse pressure produced by electric discharge in heterogeneous liquid is investigated. The calculated formulas are derived from heat-balance equation. It is pointed, that power can be determined on the basis of the computer analysis of oscillograms of the current obtained by means of electrohydraulic processing of various heterogeneous media.

Keywords: pulse pressure, the electric discharge, a heterogeneous liquid, chaotic fluctuations, nonlinear process, self-organizing, correlations, a power spectrum, system of the dynamic equations.

Seyranyan S.P. THE NAVIER SOLUTION FOR PARTLY LOADED RECTANGULAR PLATE. The Navier solution for deflection function in the problem of bending of a rectangular simply supported plate is studied. The plate is supposed to be loaded by a uniform pressure distributed on the rectangle with the sides, parallel to the sides of the plate. The author brings and uses his universal method, which belongs to the classical theory of functions. It is proved that: a) all the derivatives of the Navier solution of biharmonic operator are continuous functions in set E, which coincides with subtraction from closed rectangle G of the plate the lines passing through the sides of the rectangle of the load application b) In E these derivatives can be calculated by differentiating the Navier series term by term under both symbols of summing. The cutting forces in repeated series of accelerated convergence are given.

Keywords: rectangular plate, solution, substantiation, acceleration of convergence.

Smolin A. Y., *Dobrynin S. A.*, *Psakhie S. G.* TIME-FREQUENCY ANALYSIS OF ELASTIC WAVES IN THE MODEL FRICTION COUPLE. Elastic waves generated in friction are considered as a source of information about deformation, fracture and adhesive bonding in the friction zone. Based on computer simulation it is shown that using Fourier transform is not enough for analysis of registered signals due to dynamic nature of friction.

Keywords: friction, modeling, particle method, elastic waves, signal, Fourier analysis, wavelet analysis.

Usmanov G.Z., *Lopatin V.V.*, *Noskov M.D.*, *Cheglokov A.A.* SIMULATION OF SOLID MATERIAL BRITTLE DESTRUCTION AT ELECTROBURST. The model describing elastic wave propagation and cracks formation under action of the expanding discharge channel is presented. Results of simulation of solid material destruction by discharge channel which located near the free sample surface are presented. The work is supported by grant RFFI (08-08-01016-a)

Keywords: pulse generator, plasma channel, deformation, destruction, simulation.