

## CONTENT

### MATHEMATICS

Abdullayev S.K., Isayev F.A. <i>On some spaces of generalized smoothness .....</i>	3
Aliev A.B., Shukurova G.D. <i>Well-posedness of the Cauchy problem for hyperbolic equations with non-Lipschitz coefficients .....</i>	7
Aliev Z.S. <i>Bifurcation from zero or infinity of some fourth order nonlinear problems with spectral parameter in the boundary condition .....</i>	17
Aslanova N.M. <i>On regularized trace of one Sturm-Liouville problem with eigenvalue dependent boundary condition .....</i>	27
Bilalov B.T., Jabrayilova A.N. <i>On continuation of bounded operators .....</i>	37
Huseynov A.H. <i>On solutions of a nonlinear boundary value problem for difference equations...</i>	43
Ibadov E.J. <i>On absolute and uniform convergence of biorthogonal expansion responding to Schrodinger discontinuous operator .....</i>	51
Kasumova G.I. <i>Investigation of the Green function of second order equations with normal operator coefficients on the axis .....</i>	59
Mamedov Kh.R. <i>On the inverse problem for a class of Dirac equations system with a discontinuous coefficient and with a spectral parameter in the boundary condition .....</i>	65
Mirzoyev S.S., Gasanov R.G. <i>On completeness of elementary solutions of a fourth order operator-differential equation on a finite segment .....</i>	73
Omarova M.N. <i>Some properties of the fractional integrals on the Laguerre hypergroup .....</i>	83
Rasulov R.A. <i>Blow-up solutions to nonlinear parabolic equations.....</i>	91

Jafarov S.Z.  
*Approximation of functions by Faber-Laurent rational functions  
 on closed quasiconformal curves.* ..... 97

Shukurov A.Sh.  
*Inverse eigenvalue problem for diffusion equation with nonseparated  
 boundary conditions* ..... 103

Tagiyev R.K.  
*On optimal control for quasilinear parabolic equations* ..... 113

## MECHANICS

Gadjiev V.D., Gasymov H.M., Guliyev N.Z.  
*Axisymmetric form of stability loss of an inhomogeneous  
 cylindrical shell of annular cross section* ..... 127

Iskenderov R.A.  
*Investigation of influence of initial deflection of medium-filled  
 cylindrical shell reinforced by a regular system of cross ribs on  
 critical stresses of general stability loss* ..... 133

Latifov F.S., Aliyev A.A.  
*Free vibrations of liquid-filled cylindrical shells reinforced by annular  
 ribs, under axial compression and with regard to discrete allocation of ribs* ... 139

Mustafayev A.B.  
*Grack nucleation in thick-walled cylinder* ..... 145

## APPLIED PROBLEMS OF MATHEMATICS AND MECHANICS

Akhmedov N.K., Akperova S.B.  
*Asymptotic behavior of the solution of an axisymmetric problem of  
 elasticity theory for a radially-inhomogeneous transversally-isotropic  
 cylinder of small thickness* ..... 153

Jafarova A.M., Talybly L.Kh., Imranov F.B.  
*Analytical description of experimental data according to corrosive  
 destruction of metals* ..... 163

Mammadova E.M.  
*Settlement of porous water-saturated layer of fractal structure* ..... 167

Sardarli N.A.  
*Asymptotic investigation of the roots of a characteristic equation obtained  
 in a problem of elasticity theory for transversally-isotropic hollow cone* ..... 175