

CONTENTS

Mathematical modeling and computational methods

Ivonina E.V.

Flow of the Carreau's fluid in the tube with narrowing walls.....7

Kichenko A.A., Tver'e V.M.

Biomechanical modeling of adaptive processes in the trabecular bone.....26

Kolmogorov G.L., Zibrova E.O.

Questions of the stability of anisotropic plates36

Feoktistova E.V.

The mathematical model of bacterial cells adsorption
at the water – bacteria – hydrocarbons interface43

Shuliat'ev A.F., Akulich Iu.V.

The determination of spatial stress-strain state of human
proximal femur.....48

Automation and remote control of technological processes

Bilanov R.A., Egorov M.Iu.

The optimal parameters selection for gas gun using
numerical simulation.....57

Odiushchina K.D., Mel'nikova T.E.

Study of stress-strain state of the sheet billet in the process
of pipe forming.....67

Mathematical and instrumental methods of economics

A.O. Alekseev, A.S. Salamatina

Basic business simulation game "Competition of management
organizations in the market of the management of apartment buildings"77