

## CONTENTS

*Leonardo Acho*

A delta modulator technique to drive the chaotic duffing oscillator ..... 4

*Boris Andrievsky and Peter Guzenko*

Energy speed-gradient control of nonlinear satellite oscillations ..... 9

*Teturo Itami*

Quantum agents that obey Bose distribution ..... 16

*Tatiana Kvantuleva and Kamil Abdullaev*

Internal control in nonequilibrium physical processes ..... 21

*Begoña Mediano-Valiente and M. Isabel García-Planas*

Modelling of a clamped-pinned pipeline conveying fluid for vibrational stability analysis ..... 28

*Gerasimos Rigatos, Pierluigi Siano and Ivan Arsie*

Nonlinear embedded control of spark-ignited engines using the derivative-free nonlinear Kalman filter .... 38