CONTENTS

Daria Arslanova, Alexey Firsov, Vladimir Kukhtin, Eugeny Lamzin, Mikhail Larionov, Andrey Nezhentzev, Dmitri Ovsyannikov, Igor Rodin, Nikolay Shatil, Sergey Sytchevsky, Vyacheslav Vasiliev, and Anatoly Zaitsev
Power-efficient low-stray field hybrid magnets for MAGLEV technology 117

Nikolay Granichin, Grigory Volkov, Yuri Petrov, and Marina Volkova
Randomized approach to determine dynamic strength of ice 122

Ngo Le Huy Hien, Luu Van Huy, and Nguyen Van Hieu
Artwork style transfer model using deep learning approach of dynamical systems with impact interactions 127

Nikolay Litvinov
Control of global variables for identical and non-identical Josephson junctions arrays 138

Simona Olmi, Carl H. Totz, and Eckehard Schöll
Material optimization and dynamic materials 143

Alexander Oshchepkov
Modeling the control processes of the size population of microorganisms using modulated microwave 155

Tran Dang Khoa Phan
A multi-stage algorithm for image denoising based on PCA and adaptive TV-regularization 162

Victor Ploskikh and Elena Kotina
Challenges of gated myocardial perfusion SPECT processing 171

Cutberto Romero-Meléndez David Castillo-Fernández
A stochastic controlled Schrödinger equation: convergence and robust stability for numerical solutions ... 178

Victor Ploskikh and Elena Kotina
Challenges of gated myocardial perfusion SPECT processing 185

Denis Uzhva and Oleg Granichin
Cluster control of complex cyber-physical systems 191

Petr A. Velmisov and Andrey V. Ankilov
Mathematical modeling in problems about dynamics and stability of elastic elements of wing profiles 201