

Contents

Vol. 46, No. 2, 2010

A simultaneous English language translation of this journal is available from Allerton Press, Inc.,
Distributed worldwide by Springer. *Optoelectronics, Instrumentation and Data Processing* ISSN 8756-6990.

AUTOMATIC CONTROL SYSTEMS IN SCIENTIFIC RESEARCH AND INDUSTRY

Controller Synthesis for Automatic Control Systems: State and Prospects <i>A. S. Vostrikov</i>	107
Quantitative Assessment of the Tendency of Complex Multivariable Control System to Degeneration <i>N. A. Dudarenko and A. V. Ushakov</i>	120
Using Tools of Complexity Science to Diagnose the Current Financial Crisis <i>G. Rzevski</i>	125
Fuzzy Approximator of Atmospheric Temperature Fields <i>M. Yu. Kataev, A. V. Lavygina, I. A. Khodashinskii, and D. A. Epshtein</i>	134

ANALYSIS AND SYNTHESIS OF SIGNALS AND IMAGES

Area Estimation of Stochastic Objects from an Image Containing a Background <i>A. P. Trifonov and Yu. N. Pribytkov</i>	142
Cluster Analysis of Earth Remote Sensing Data <i>V. V. Asmus, A. A. Buchnev, and V. P. Pyatkin</i>	149
Simultaneous Estimation of Liquid Level and Density Based on the Maximum Likelihood Method <i>E. N. Abrosimov, A. S. Semenov, and A. L. Shestakov</i>	156

OPTICAL INFORMATION TECHNOLOGIES

Optimization of Holographic Memory Parameters with Allowance for Cross-Talk <i>V. A. Dombrovskii and E. F. Pen</i>	163
Microstructuring of Optical Surfaces: Technology and Device for Direct Laser Writing of Diffractive Structures <i>A. G. Poleshchuk, A. A. Kutanov, V. P. Bessmeltsev, V. P. Korolkov, R. V. Shimanskii, A. I. Malyshev, A. E. Matochkin, N. V. Goloshevskii, K. V. Makarov, V. P. Makarov, I. A. Snimshchikov, and N. Sydyk uulu</i>	171
Formation of Variable-Spatial Frequency Interference Patterns with the Use of Birefringent Crystal Prisms for Laser Fourier Spectroscopy <i>V. Yu. Osipov, Yu. V. Osipov, V. N. Popov, and A. A. Buznikov</i>	181
Interference Microscope-Profilometer <i>E. V. Sysoev, I. A. Vykhristyuk, R. V. Kulikov, A. K. Potashnikov, V. A. Razum, and L. M. Stepnov</i>	198
