

TABLE OF CONTENTS

In the Memory of Tatyana Fadeyeva	5
1. Evolution of Symmetric and Asymmetric Optical Beam Arrays Passing Along Optical Axis of Uniaxial Crystal <i>Fadeyeva T. A., Ivanov M. O., Borysova K. V., Borysov A. G., Rubass A. F. ...</i>	7
2. Generation of Fractional Optical Vortices <i>Kovalyova A. O., Markovskyy A. A., Fadeyeva T. A., Rubass A. F.</i>	13
3. Optical Vortices in Weakly Elliptical Anisotropic Fibres with Torsional Mechanical Stress <i>Yavorsky M. A.</i>	20
4. Influence of a Twist Defect in a Layered Helical Core Fiber on Single-Charged Optical Vortex Generation <i>Lapin B. P.</i>	31
5. Distribution of the Antiferromagnetic Vector for a Periodic System of Remote Circular Antidots and a Couple of Circular Antidots in an Antiferromagnetic Film <i>Gorobets Yu. I., Gorobets O. Yu., Kulish V. V.</i>	38
6. Influence of the Magnetic Anisotropy on the Formation of Spin Nematic Properties <i>Moiseenko D. D., Butrim V. I.</i>	53
7. Spectra of Elementary Excitations and Phase Diagram of Non-Heisenberg Spin-2 Magnetic <i>Kosmachev O. A.</i>	60
8. Scalar Field Potential Distribution for a Closed Radially Expanding Null String in Plane $z = 0$ <i>Lelyakov A. P., Usachyov A. S., Babadzhan R. A.</i>	69
9. To the Problem of Boundary Conditions of Null String <i>Lelyakov A. P., Karpenko A. S.</i>	79
10. Model of Quantum Measurement, Which Leads to Reduction of Wave Function <i>Mayorova A. N., Mendygulov Yu. D, Mitsay Yu. N.</i>	89

11. Five-Dimensional Geometry of Supermultivers as a Result of the Synergetic Self-Organization of Stochastic Fluctuations in the Minkowski Geometry	
<i>Mayorova A. N., Mendygulov Yu. D., Mitsay Yu. N.</i>	95
12. Design of Magneto-optical Rotator for the Switch of a Two-Wave Light Flux in Fiber-Optic Communication Networks	
<i>Basiladze G. D., Berzhansky V. N., Dolgov A. I.</i>	109
13. Model of the Multi-Wavelength Magneto-Optical Rotator	
<i>Basiladze G. D., Berzhansky V. N., Dolgov A. I., Prokopov A. R.</i>	117
14. NMR Magic Echo in Natrolite	
<i>Ryabushkin D. S., Sapiga A. V., Redka Ye. S.</i>	125
15. On the Choice of Spin Hamiltonian for Fe³⁺ in Fe_xGa_{1-x}BO₃ Single Crystals	
<i>Strugatsky M. B., Yagupov S. V., Postivey N. A., Seleznyova K., Artemenko A., Kliava J.</i>	132
16. Influence s-d Exchange Interaction on the Transport Processes in the Ferrites	
<i>Yevstafyev I. I.</i>	138
17. The Research of Nanostructural Materials' Properties Obtained Through Partial Crystallization of Amorphous Alloys	
<i>Lysov V. I., Tsaregradskaya T. L., Turkov O. V., Saenko G. V., Teselko P. O.</i> ..	143
18. Automated DC Power Supply with Possibility of Remote Control for Research Purposes	
<i>Lyashko S. D., Lyashko D. A.</i>	151
19. A Simple Precision Modulus for Temperature Measurements	
<i>Yevdokimov S. V., Sapiga A. A., Pritulenko A. S., Yatsenko A. V.</i>	158
Events 2013: International Scientific Conference "Functional Materials" ICFM'2013 (Haspra, Crimea, Ukraine, September 29 - October 5, 2013)	
<i>Berzhansky V. N.</i>	162
Table of Contents	166