

NATIONAL  
ACADEMY  
OF SCIENCES  
OF UKRAINE

PIDSTRYHACH  
INSTITUTE OF  
APPLIED PROBLEMS  
OF MECHANICS AND  
MATHEMATICS

# MATHEMATICAL METHODS and PHYSICOMECHANICAL FIELDS

SCIENTIFIC JOURNAL

FOUNDED IN 1975

**Vol. 60, No. 3**

L'viv 2017

---

---

## CONTENTS

<i>Ivasyshen S. D., Medynsky I. P.</i> Classical fundamental solution of the Cauchy problem for ultraparabolic Kolmogorov-type equations with two groups of spatial variables of degeneration. I .....	9
<i>Baranetskij Ya. O., Kalenyuk P. I.</i> Nonlocal multipoint problem for an ordinary differential equation of order $2n$ with a multiple spectrum .....	32
<i>Kalenyuk P. I., Volyans'ka I. I., Il'kiv V. S., Nytrebych Z. M.</i> On unique solvability of three-point problem for partial differential equation in a two-dimensional domain .....	46
<i>Bodnar D. I. Bilanyk I. B.</i> On convergence of branched continued fractions of the special form in angular domains .....	60
<i>Kuchminska Kh. Yo., Vozna S. M.</i> Development of $N$ -multiple power series into $N$ -dimensional regular $C$ -fraction .....	70
<i>Antonova T. M., Sus' O. M.</i> On figured relative stability under perturbations of two-dimensional continued fractions with complex elements.....	76
<i>Plyatsko R. M., Fenyk M. T.</i> Equations of dynamics of a spinning particle in general relativity .....	89
<i>Kyrchei I. I.</i> Determinantal representations of a solution to the quaternion generalized Sylvester matrix equation .....	97
	5

<i>Zagorodnyuk A. V., Kravtsiv V. V.</i> A multiplicative convolution on the algebra of block-symmetric analytic functions .....	107
<i>Bandura A. I., Skaskiv O. B., Tsvigun V. L.</i> Analytic in $\mathbb{D} \times \mathbb{C}$ functions of bounded $\mathbf{L}$ -index in joint variables .....	115
<i>Vasylyshyn T. V.</i> Algebras of entire symmetric functions on spaces of Lebesgue measurable essentially bounded functions .....	122
<i>Pryimak H. M.</i> Non-classical differentiation in algebras of analytical functions of bounded type .....	133
<i>Martsinkiv M. V.</i> Algebras of Lipschitz-analytic maps .....	138