

Contents

Volume 218, 1997

On Professor A. A. Karatsuba's Works in Mathematics	
<i>G. I. Arkhipov and V. N. Chubarikov</i>	1
From the Karatsuba Method for Fast Multiplication of Numbers to Fast Algorithms for Discrete Functions	
<i>V. B. Alexeev</i>	15
On the Power of a Singular Set in Binary Additive Problems with Prime Numbers	
<i>G. I. Arkhipov, K. Buriev, and V. N. Chubarikov</i>	23
Simultaneous Approximation of Zero by Values of Integral Polynomials	
<i>V. I. Bernik and V. N. Borbat</i>	53
On One Method of Estimation of the L_1 -Norm of an Exponential Sum	
<i>S. V. Bochkarev</i>	69
On Interpolation Formulas	
<i>S. M. Voronin</i>	72
Third-Degree Diophantine Equations	
<i>M. Z. Garaev</i>	94
Limit Theorem with Weight for the Lerch Zeta Function in the Space of Analytic Functions	
<i>R. Garunkshtis and A. Laurinchikas</i>	104
On the Complexity of Integration of Rational Fractions	
<i>S. B. Gashkov</i>	117
On the Zeros of Linear Combinations of the Analogs of Riemann's Function	
<i>S. A. Gritsenko</i>	129
Orbits of Representation of Numbers by Local Quadratic Forms	
<i>V. G. Zhuravlev</i>	146
Difference Equations and the Irrationality Measure of Numbers	
<i>V. V. Zudilin</i>	160
On the Exponent of Convergence of Trigonometric Integrals	
<i>I. A. Ikromov</i>	175
On the Rationality Problem for Three-Dimensional Algebraic Varieties	
<i>V. A. Iskovskikh</i>	186
The Complexity of Circuits of Unit Resistances and Some Properties of Fibonacci Numbers	
<i>O. M. Kasim-Zadeh</i>	228
Representation of Numbers by Quadratic Forms	
<i>L. A. Kogan</i>	243

Optimisation Problem for the Brunn–Minkowski Inequality	
<i>F. M. Malyshev</i>	257
On the Lower Bound of the Number of Variables for the Solvability of the Hilbert–Kamke System in 3-Adic Integers	
<i>D. A. Mit'kin</i>	261
The Function $\tilde{\zeta}_{-1}(s)$ and Formulas of the Second Generation for $\pi(x)$ and $R(x)$	
<i>J. Moser</i>	282
On the Measure of Algebraic Independence of the Values of Ramanujan Functions	
<i>Yu. V. Nesterenko</i>	294
Distribution of Signs in a Sequence of Rectangular Matrices over a Finite Field	
<i>V. I. Nechaev</i>	332
Meromorphic Continuation of Dirichlet Series Connected with the Distribution of Numbers Modulo 1	
<i>A. I. Pavlov</i>	340
Spherical Convergence of the Fourier Series and Integral of the Indicator of a Two-Dimensional Domain	
<i>D. A. Popov</i>	352
Estimates of the Derivatives of Polynomials on Convex Bodies	
<i>V. I. Skalyga</i>	372
On the Mean Value of the Ternary Function of Divisors on a Sparse Sequence	
<i>H. M. Saliba</i>	384
On the Construction of Probability Measures on Functional Classes	
<i>N. T. Temirgaliev</i>	396
Distribution in the Mean in Progressions of Numbers with a Large of Prime Factors	
<i>N. M. Timofeev</i>	402
On the Number of Representations of an Odd Integer as a Sum of Three Primes, One of Which Belongs to an Arithmetic Progression	
<i>D. I. Tolev</i>	414
On the Algebraic Independence of the Values of Functions Satisfying Systems of Functional Equations	
<i>V. G. Chirskii</i>	433
On the Algebraic Independence of the Values of E -Functions	
<i>A. B. Shidlovskii</i>	439
On Trigonometric Series with Positive Partial Sums	
<i>V. A. Yudin</i>	444
