CONTENTS

Preface	ix
A Survey of the Early History of the Theory of Random Mappings B. Harris	1
On Goncharov's Works in the Field of Combinatorics V. F. Kolchin	23
Probability Distributions in Prime Number Theory S. W. Golomb	28
Polynomial and Polynomial-Like Allocations: Recent Developments $V.\ G.\ Mikhailov$	40
Properties of Random Permutations with Constraints on the Maximum Cycle Length A. A. Grusho	60
Stochastic Properties of Systems of Random Linear Equations over Finite Algebraic Structures I. N. Kovalenko and A. A. Levitskaya	64
On the Number of Solutions of Systems of Pseudo-Boolean Random Equations G. V. Balakin	71
Problems of Security in Information Processing Systems A. F. Ronzhin	99
Decomposable Statistics Based on the Spacings and Spacing-Frequencies of Higher Orders A. A. Ashurkov	128
On the Allocation Processes with Given Distributions of Frequency Vectors	133

Statistical Problems Concerned with Estimation of the Composition of β-Radioactive Wastes	
P. V. Chistyakov, V. P. Chistyakov, V. I. Dorogov, and V. I. Handogin	143
On Transient Phenomena for Branching Migration Processes E. E. Dyakonova	148
Asymptotic Behaviour of Waiting Times in a Scheme of Particle Allocation N. J. Enatskaya and E. R. Khakimullin	155
Limit Theorems for U -Statistics of Dependent Random Variables $A.B.$ Gortchakov	186
Limit Theorems for Decomposable Statistics of Dependent Random Variables A.B. Gortchakov	200
Estimating Finite Stratified Populations G. I. Ivchenko and S. A. Khonov	212
Asymptotic Expansions for Permutation Tests with Several Samples Sh. Ismatullaev and Sh. Mirakhmedov	226
On Approximation of Weighted Sums of Random Variables with Two-Dimensional Indices K. A. Jafarov	240
On a Lower Bound for the Isoperimetric Number of Cubic Graphs A. V. Kostochka and L. S. Melnikov	251
A Risk Function in Global Optimization Problem S. V. Kovalev and V. V. Mazalov	266
On an Existence Theorem for Decomposable Statistics E. M. Kudlaev	271
The Property of Phase Transitions in Random Graphs A. V. Lapshin	287
On Sums of Values of the Legendre Symbol over Components in a Scheme of Generation of Random Vectors	298

On the Strong Law of Large Numbers for Sums of Pairwise Independent Random Variables A. I. Martikainen	305
On a Special Class of Functions Associated with the Complexity of String Correction Problem S. S. Martynov	313
Operator Moments of Random Euclidean Mappings V. M. Maximov	316
Percolation Method in a System of Numerous Particles M. V. Menshikov and K. D. Pelikh	329
Models of ρ -Percolation M. V. Menshikov and S. A. Zuev	337
On Estimation of the Coefficient of Asymptotic Relative Efficiency of Discrete-Analogue Algorithms to Detect Signals in a Non-Gaussian Noise T. Yu. Morozova and A. N. Trunov	3 48
Random Mappings and Trees: Relations between Asymptotics of Moments of Certain Characteristics L. R. Mutafchiev	353
On a Nonlinear Generalization of the Occupancy Problem G. V. Proskurin	366
Weak Convergence of Certain Multiple Sums of Dependent Random Variables I. Rakhimov	376
On Problems of Renewal System Theory for Finite Time Interval A. A. Rogov and V. I. Tchernetskii	386
On the Generating Functions of Coloured Partitions and Limit Theorems for Sums of Indicators M. N. Rokhlin	395
Probabilistic Methods in the Theory of Approximation of Discrete Functions B. V. Ryazanov	403
Chernoff's Inequality for Sum of Independent Random Vectors N. P. Salikhov	413

List of contributors	470
Limit Theorems for Random A-Permutations A. L. Yakymiv	459
Boolean Functions and Approximation of Vectors V. M. Sidelnikov and O. V. Sipacheva	454
How Often is Addition Equal to Bitwise Addition? V. I. Sherstnev	451
Runs in Finite Markov Chains L. Ya. Savelyev	437
Some Limit Theorems in Batch Allocation Scheme with Random Levels Defined by an Allocation Scheme M. Savchuk	428