

TABLE OF CONTENTS

VOLUME I

	Page
Officers of the Congress.....	vii
Committees of the Congress.....	1
Donors.....	5
List of delegates.....	7
List of members.....	36
Scientific program.....	88
Report of the secretary.....	121
Opening of the Congress by the chairman of the Organizing Committee.....	123
Election of President.....	123
Address of the President of the Congress.....	124
Award of the Fields medals.....	126
Address by Professor Harald Bohr.....	127
Statistics of the Congress.....	135
Address of Dr. Detlev Bronk, President of the National Academy of Sciences.....	141
Stated addresses	
Albert, A. A., Power-associative algebras.....	149
(see Volume II, Report of the Conference in Algebra, p. 25)	
Beurling, A., On null-sets in harmonic analysis and function theory.....	150
Bochner, S., Laplace operator on manifolds.....	151
(see Volume II, Report of the Conference in Analysis, p. 189)	
Cartan, H., Problèmes globaux dans la théorie des fonctions analytiques de plusieurs variables complexes.....	152
Chern, S. S., Differential geometry of fiber bundles.....	165
(see Volume II, Report of the Conference in Topology, p. 397)	
Davenport, H., Recent progress in the geometry of numbers.....	166
Gödel, K., Rotating universes in general relativity theory.....	175
Hodge, W. V. D., The topological invariants of algebraic varieties.....	182
Hopf, H., Die n -dimensionalen Sphären und projektiven Räume in der Topologie.....	193
Hurewicz, W., Homology and homotopy.....	203
(see Volume II, Report of the Conference in Topology, p. 344)	
Kakutani, S., Ergodic theory.....	204
(see Volume II, Report of the Conference in Analysis, p. 128)	
Morse, M., Recent advances in variational theory in the large.....	205
(see Volume II, Report of the Conference in Analysis, p. 143)	
von Neumann, J., Shock interaction and its mathematical aspects.....	206
(see Volume II, Report of the Conference in Applied Mathematics, p. 276)	
Ritt, J. F., Differential groups.....	207
Rome, A., The calculation of an eclipse of the sun according to Theon of Alexandria.....	209
Schwartz, L., Théorie des noyaux.....	220
Wald, A., Basic ideas of a general theory of statistical decision rules.....	231
Weil, A., Number-theory and algebraic geometry.....	244
(see Volume II, Report of the Conference in Algebra, p. 90)	
Whitney, H., r -dimensional integration in n -space.....	245
Wiener, N., Comprehensive view of prediction theory.....	257
(see Volume II, Report of the Conference in Applied Mathematics, p. 308)	
Wilder, R. L., The cultural basis of mathematics.....	258

	Page
Zariski, O., The fundamental ideas of abstract algebraic geometry.....	272
(see Volume II, Report of the Conference in Algebra, p. 77)	
Addresses and communications in sections	
Section I. Algebra and theory of numbers	
Kloosterman, H. D., The characters of binary modular congruence groups.....	275
Mahler, K., Farey sections in the fields of Gauss and Eisenstein.....	281
Selberg, A., The general sieve-method and its place in prime number theory.....	286
Abstracts of contributed papers	
Theory of numbers and forms.....	293
Groups and universal algebra.....	303
Rings and algebras.....	316
Arithmetic algebra.....	322
Vector spaces and matrices.....	325
Theory of fields and equations.....	330
Theory of games.....	334
Section II. Analysis	
Bohr, H., A survey of the different proofs of the main theorems in the theory of almost periodic functions.....	339
Mandelbrojt, S., Quelques théorèmes d'unicité.....	349
Rademacher, H., Additive algebraic number theory.....	356
Bergman, S., On visualization of domains in the theory of functions of two complex variables.....	363
Abstracts of contributed papers	
Functions of real variables.....	374
Functions of complex variables.....	389
Theory of series and summability.....	408
Differential and integral equations.....	426
Functional analysis.....	448
Measure theory.....	477
Section III. Geometry and topology	
Santaló, L. A., Integral geometry in general spaces.....	483
Segre, B., Arithmetical properties of algebraic varieties.....	490
Abstracts of contributed papers	
Geometry.....	494
Differential geometry.....	500
Algebraic geometry.....	511
Algebraic topology.....	521
Function spaces and point set topology.....	532
Section IV. Probability and statistics, actuarial science, economics	
Bose, R. C., Mathematics of factorial designs.....	543
Lévy, P., Processus à la fois stationnaires et markoviens pour les systèmes ayant une infinité dénombrable d'états possibles.....	549
Roy, S. N., On some aspects of statistical inference.....	555
Abstracts of contributed papers	
Probability.....	565
Interpolation.....	577
Statistics.....	580
Economics.....	588
Section V. Mathematical physics and applied mathematics	
Darwin, C. G., The refractive index of an ionised gas.....	593
Lewy, H., Developments at the confluence of analytic boundary conditions.....	601
Rellich, F., Störungstheorie der Spektralzerlegung.....	606

	Page
Abstracts of contributed papers	
Mechanics	614
Elasticity and plasticity	616
Hydrodynamics	625
Mathematical physics	644
Optics and electromagnetic theory	646
Relativity, gravitation, and field theory	651
Numerical methods	657
Partial differential equations	667
Miscellaneous	672
Section VI. Logic and philosophy	
Kleene, S. C., Recursive functions and intuitionistic mathematics	679
Robinson, A., On the application of symbolic logic to algebra	686
Skolem, Th., Some remarks on the foundation of set theory	695
Taraki, A., Some notions and methods on the borderline of algebra and metamathematics	705
Abstracts of contributed papers	721
Section VII. History and education	
Pólya, G., On plausible reasoning	739
Abstracts of contributed papers	
History	748
Education	752