Volume I Arithmetic

N. Aoki and T. Shioda, Generators of the Néron-Severi Group of a	1
Fermat Surface	13
S. Bloch, p-adic Etale Cohomology	
J.W.S. Cassels, The Mordell-Weil Group of Curves of Genus 2	27
G.V. Chudnovsky, Number Theoretic Applications of Polynomials with Rational Coefficients Defined by Extremality Conditions	61
J. Coates, Infinite Descent on Elliptic Curves with Complex Multiplication	107
N.M. Katz, On the Ubiquity of Pathology in Products	139
S. Lang, Conjectured Diophantine Estimates on Elliptic Curves	155
S. Lichtenbaum, Zeta-Functions of Varieties over Finite Fields at s = 1	173
B. Mazur and J. Tate, Canonical Height Pairings via Biextensions	195
J.S. Milne, The Action of an Automorphism of C on a Shimura Variety and its Special Points	239
N.O. Nygaard, The Torelli Theorem for Ordinary K3 Surfaces over Finite Fields	267
A.P. Ogg, Real Points on Shimura Curves	277
I.I. Piatetski-Shapiro, Special Automorphic Forms on PGSp ₄	309
M. Raynaud, Courbes sur une variété abélienne et points de torsion	327
A. Weil, Euler and the Jacobians of Elliptic Curves	353

Volume II Geometry

V.I. Arnold, Some Algebro-Geometrical Aspects of the Newton Attraction Theory	1
M. Artin and J. Denef, Smoothing of a Ring Homomorphism Along a Section	5
M.F. Atiyah and A.N. Pressley, Convexity and Loop Groups	33
H. Bass, The Jacobian Conjecture and Inverse Degrees	65
R. Bryant and P. Griffiths, Some Observations on the Infinitesimal Period Relations for Regular Threefolds with Trivial Canonical Bundle	77
H. Hironaka, On Nash Blowing-Up	103
F. Hirzebruch, Arrangements of Lines and Algebraic Surfaces	113
V.G. Kac and D.H. Peterson, Regular Functions on Certain Infinite- dimensional Groups	141
W.E. Lang, Examples of Surfaces of General Type with Vector Fields	167
Yu.I. Manin, Flag Superspaces and Supersymmetric Yang-Mills Equations	175
B. Moishezon, Algebraic Surfaces and the Arithmetic of Braids, I	199
D. Mumford , Towards an Enumerative Geometry of the Moduli Space of Curves	271
C. Musili and C.S. Seshadri, Schubert Varieties and the Variety of Complexes	327
A. Ogus, A Crystalline Torelli Theorem for Supersingular K3 Surfaces	361
M. Reid, Decomposition of Toric Morphisms	395
M. Spivakovsky, A Solution to Hironaka's Polyhedra Game	419
A.N. Tjurin, On the Superpositions of Mathematical Instantons	433
A.N. Todorov, How Many Kähler Metrics Has a K3 Surface?	451
O. Zariski, On the Problem of Irreducibility of the Algebraic System of Irreducible Plane Curves of a Given Order and Having a Given	465

Number of Nodes