

Contents

Intelligent primality test offer A. O. L. ATKIN	1
Atkin and the Atlas lab B. BIRCH	13
Elliptic and modular curves over finite fields and related computational issues N. D. ELKIES	21
Algorithms for computing isogenies between elliptic curves R. LERCIER AND F. MORAIN	77
Supersingular j -invariants, hypergeometric series, and Atkin's orthogonal polynomials M. KANEKO AND D. ZAGIER	97
On the density of modular representations F. GOUVÉA AND B. MAZUR	127
Numerical experiments on families of p -adic modular forms R. COLEMAN, G. STEVENS, AND J. TEITELBAUM	143
Ramanujan graphs A. PIZER	159
Elliptic curves, Kloosterman sums, and Ramanujan graphs W. LI	179
Binary cubic forms and cubic number fields K. BELABAS AND H. COHEN	191
Rigorous discrete logarithm computations in finite fields via smooth polynomials R. L. BENDER AND C. POMERANCE	221