

**ICM-9309-57** Height as a Coefficient Bound for Univariate Polynomial Factors, Zhuojun Liu and Paul S. Wang.

**ABSTRACT** A priori bounds for the size of coefficients of the desired factors are important for modern polynomial factoring algorithms. Experts have long suspected that the maximum coefficient size in a given polynomial, called the *height*, is a good heuristic bound. Developed are sufficient conditions under which the simple height bound is actually valid. Efficient ways to check these conditions are investigated and implemented.