

**ICM-9109-12** Symbolic Computation and Parallel Software, Paul S. Wang.

**ABSTRACT:** Two aspects of parallelism as related to symbolic computing are presented: (1) the implementation of parallel programs for the factorization of polynomials, and (2) the automatic derivation and generation of parallel codes for finite element analysis. The former illustrates the use of parallel programming to speed up symbolic manipulation. The latter shows how symbolic systems can help create parallel software for scientific computation. Through these two case studies, the promise of parallelism in symbolic computation is demonstrated.