

## CONTENTS

Foreword .....	ix
Preface .....	xi
Mathematical Aspects of Scientific Software .....	1
<i>John R. Rice</i>	
The Mapping Problem in Parallel Computation .....	41
<i>Francine Berman</i>	
Applications of Grobner Bases in Non-linear Computational Geometry .....	59
<i>Bruno Buchberger</i>	
Geometry in Design: The Bezier Method .....	89
<i>Gerald Farin</i>	
Algebraic Curves .....	101
<i>Christoph M. Hoffmann</i>	
Performance of Scientific Software .....	123
<i>E.N. Houstis, J.R. Rice, C.C. Christara and E.A. Vavalis</i>	
Scratchpad II: An Abstract Datatype System for Mathematical Computation .....	157
<i>Richard D. Jenks, Robert S. Sutor and Stephen M. Watt</i>	
Data Parallel Programming and Basic Linear Algebra Subroutines .....	183
<i>S. Lennart Johnsson</i>	
Integrating Symbolic, Numeric and Graphics Computing Techniques .....	197
<i>Paul S. Wang</i>	