
CONTENTS

1. OVERVIEW OF BASIC NUMERICAL METHODS	1
<i>by R. H. Pletcher, W. J. Minkowycz, E. M. Sparrow, and G. E. Schneider</i>	
2. PARABOLIC SYSTEMS: Finite-Difference Method I	89
<i>by S. V. Patankar</i>	
3. PARABOLIC SYSTEMS: Finite-Difference Method II	117
<i>by T. Cebeci</i>	
4. PARABOLIC SYSTEMS: Finite-Element Method	155
<i>by G. Comini and S. Del Giudice</i>	
5. PARABOLIC SYSTEMS: Local Nonsimilarity Method	183
<i>by T. S. Chen</i>	
6. ELLIPTIC SYSTEMS: Finite-Difference Method I	215
<i>by S. V. Patankar</i>	
7. ELLIPTIC SYSTEMS: Finite-Difference Method II	241
<i>by G. D. Raithby and G. E. Schneider</i>	
8. ELLIPTIC SYSTEMS: Finite-Difference Method III	292
<i>by K. N. Ghia and U. Ghia</i>	
9. ELLIPTIC SYSTEMS: Finite-Difference Method IV	347
<i>by B. P. Leonard</i>	
10. ELLIPTIC SYSTEMS: Finite-Element Method I	379
<i>by G. E. Schneider</i>	
11. ELLIPTIC SYSTEMS: Finite-Element Method II	421
<i>by B. R. Baliga and S. V. Patankar</i>	
12. HYPERBOLIC AND HYPERBOLIC-PARABOLIC SYSTEMS	463
<i>by J. C. Tannehill</i>	
13. FINITE DIFFERENCES VERSUS FINITE ELEMENTS	519
<i>by D. W. Pepper and A. J. Baker</i>	
14. INTEGRAL AND INTEGRO-DIFFERENTIAL SYSTEMS	579
<i>by T. J. Chung</i>	

15. PERTURBATION METHODS	625
by <i>A. Aziz</i>	
16. MONTE CARLO METHODS	673
by <i>A. Haji-Sheikh</i>	
17. FINITE ANALYTIC METHOD	723
by <i>C.-J. Chen</i>	
18. NUMERICAL METHODS FOR MOVING BOUNDARY PROBLEMS	747
by <i>N. Shamsundar and E. Roosz</i>	
19. INVERSE PROBLEMS	787
by <i>J. V. Beck and B. Blackwell</i>	
20. GRAPHICS	835
by <i>D. W. Pepper and P. A. Watterberg</i>	
21. GRID GENERATION	905
by <i>J. F. Thompson</i>	
22. PROGRAMMING OF SUPERCOMPUTERS	949
by <i>L. J. Hayes</i>	
INDEX	1001