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Numerical Methods in Thermal Problems

Volume VI, Part 1

Edited by

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NUMERICAL METHODS IN THERMAL PROBLEMS

Volume VI, Part 1

PREFACE

This proceedings contains the papers presented at the Sixth International Conference on Numerical Methods in Thermal Problems held in Swansea during the period July 3rd - 7th, 1989. Over two hundred and forty abstracts were submitted to the organising committee and their high standard made it extremely difficult to leave out so many, but constraints of space and time demanded that over a third be rejected. The organisers would, Movever, like to thank the authors concerned for sending in their manuscripts for consideration.

The ever continuing interest in the application of numerical methods for the solution of thermal based problems is aptly demonstrated in these proceedings. The papers, contributed by authors from many countries, have been separated into eleven sections, which cover the main areas of interest, e.g. 'heat conduction', 'free and forced convection', 'heat and mass transfer' and a large interest in casting simulation necessitated a section being given to this topic alone. In general, the manuscripts have been placed into the appropriate field of interest apart from the more diversified groups of 'novel computational techniques' and 'industrial and scientific applications'.

The proceedings are printed from direct lithographs of the authors' manuscripts and the editors do not accept responsibility for any erroneous comments or opinions expressed herein. As in previous conferences of this highly successful series, a planned 'state-of-the-art' archival text will be produced after the conference.

Last, but by no means least, the conference organising committee wishes to acknowledge the collaboration of the international journals Numerical Methods in Engineering and Communications in Applied Numerical Methods and also the support of the University College of Swansea.

R.W. LEWIS and K. MORGAN

May, 1989

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VOLUME 1



SECTION 1

PHASE CHANGE PROBLEMS