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# ***MATHEMATICS IN TRANSPORT PLANNING AND CONTROL***



Proceedings of the  
3rd IMA International Conference on  
Mathematics in Transport Planning and Control

Edited by

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## PREFACE

This volume contains forty of the papers presented at the International Conference on Mathematics in Transport Planning and Control which was held at Cardiff University from 1-3 April, 1998. This was the third such conference run under the auspices of the Institute of Mathematics and Its Applications, the first being held at the University of Surrey in 1979, and the second at Cardiff University in 1989. Over fifty papers were submitted for presentation at the conference, and the papers included in these Proceedings are those selected following a strict refereeing procedure.

It will be clear from the contents that mathematical ideas and methodologies continue to play a prominent part in the description and solution of the many and varied problems that are being currently investigated in quite diverse areas of transport research. There are papers relating to modes of transport such as road, rail, air and shipping. Applications will be found on transport planning, congestion, assignment, networks, signalling, road safety, and environmental issues. It is hoped that the reader, whether an "old hand" or a newcomer to the subject area, will find much to interest him/her. For those with little previous knowledge of the subject area, the Plenary papers presented by Professor R.E. Allsop (University College London) and Dr. R. Kimber (Transport Research Laboratory) are recommended as starting points.

I wish to express my personal thanks to the members of the organizing committee (Professor M. Maher, Dr. B.G. Heydecker, Dr. N. Hounsell, Dr. J.G. Hunt, Professor C. Wright), who also acted as Associate Editors, and to the referees who gave freely of their time and expertise. Finally, my thanks are due to my secretary, Ms June Thomas, without whose sterling efforts these Proceedings would not have seen the light of day.

**J.D. Griffiths**  
*Editor*