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Editors' Preface

This volume of Lecture Notes in Physics contains the complete proceedings of the Fifth International Conference on Numerical Methods in Fluid Dynamics, which was held at Twente University of Technology, Enschede, the Netherlands from June 28 to July 3, 1976. In the programme two invited one-hour lectures were included, one by Prof. J.L. LIONS from the Collège de France in Paris (presented by Prof. R. GLOWINSKI) on those methods for solving free surface problems which are connected to the calculus of variations, and the other by Prof. S.A. ORSZAG from the Mathematics Department of the Massachusetts Institute of Technology, U.S.A., on transition and turbulence. Besides these there were given four invited half-hour lectures, namely by Prof. O.R. BURGGRAF from the Ohio State University, U.S.A., on viscous flows, Dr. M.G. HALL, Royal Aircraft Establishment, England, on transonic flows, Mr. W. LOEVE, National Aerospace Laboratory NLR, the Netherlands, on aerodynamics of wing-body combinations at subsonic speeds and Dr. G. SCHMID, Ruhr University, Germany, on finite element methods in fluid dynamics. Finally, 53 short communications have been presented which are also published in this volume in alphabetic order of the name of the (first) author.

The conference has been financially supported by the Office of Naval Research (ONR) and the Air Force Office of Scientific Research (AFOSR), both in the U.S.A. The Dutch Organizing Committee wishes to express his thanks for this highly appreciated support.

We wish to thank all persons who contributed to the success of the conference, the participants for their scientific contributions and the students of the Drienerlo Organisational Bureau for all technical arrangements and help in the organisation.

Finally, we wish to express our appreciation to Dr. W. BEIGLBÖCK and the Springer Verlag for the rapid publication of these proceedings in the series of Lecture Notes in Physics.

September 20, 1976

A.I. VAN DE VOOREN

P.J. ZANDBERGEN

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