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**Research in Numerical
Fluid Mechanics**

Notes on Numerical Fluid Mechanics

Volume 17

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Research in Numerical Fluid Mechanics

Proceedings of the 25th Meeting
of the Dutch Association
for Numerical Fluid Mechanics



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PREFACE

The Dutch Association for Numerical Fluid Mechanics (Kontaktgroep Numerieke Stromingsleer, KNSL) was founded in The Netherlands in November 1974. Since then, the Association has organized meetings twice a year. The present volume contains the proceedings of the 25th meeting, held on October 20, 1986, at Delft University of Technology.

The purpose of the KNSL is to provide an opportunity for researchers in numerical fluid mechanics to meet regularly and to inform each other about their research in an informal atmosphere. Presentations preferably describe work in progress, and discussion of unsolved problems and unresolved difficulties is encouraged. The working language is Dutch. Nevertheless, science and technology are worldwide activities, and therefore it was decided to publish the proceedings of the 25th meeting in English.

The nine contributions to the 25th meeting were selected by profs. A.I. van de Vooren, C.B. Vreugdenhil and the editor. These works are far from covering completely all activity in this field in this country, but they are typical of what is going on. A wide range of subjects is discussed, including fundamental aspects of spectral methods, solution methods for the Euler equations and aeronautical applications, viscous ship hydrodynamics, shallow water equations, viscous flows with capillary and non-Newtonian effects, and turbulent heat transfer with industrial applications.

The 25th meeting of the KNSL was supported financially by ECN (Netherlands Energy Research Foundation), MARIN (Maritime Research Institute Netherlands), NLR (National Aerospace Laboratory), WL (Delft Hydraulics Laboratory), VEG Gasinstituut, Delft University of Technology and University of Twente. This support is gratefully acknowledged.

December 1986

P. Wesseling

CONTENTS

	Page
J.W. BOERSTOEL, A.E.P. VELDMAN, J. VAN DER VOOREN, A.J. VAN DER WEES: Trends in CFD for Aeronautical 3-D Steady Applications: the Dutch Situation	1
C. CUVELIER: On the Computation of Free Boundaries	18
D. VAN ESSEN, G. KÜPERS, H. MES: Thermal Hydraulic Modelling Stu- dies on Heat Exchanging Components	30
M. HOEKSTRA: Computation of Steady Viscous Flow Near a Ship's Stern	45
C.J. HOOGENDOORN, TH.H. VAN DER MEER: Convection-Diffusion Phenome- na and a Navier-Stokes Processor	58
M.A. HULSEN, J. VAN DER ZANDEN: Problems, Analysis and Solutions of the Equations for Viscoelastic Flow	73
B. KOREN, S. SPEKREIJSE: Multigrid and Defect Correction for the Efficient Solution of the Steady Euler Equations	87
A.J. RENKEMA, R. VERSTAPPEN, R.W. DE VRIES, P.J. ZANDBERGEN: Some Experiences with Spectral Methods	101
G.K. VERBOOM, A. SEGAL: Weakly-Reflective Boundary Conditions for Shallow Water Equations	115