ANNOUNCEMENTS

INTERNATIONAL CONFERENCE ON NUMERICAL METHODS IN LAMINAR AND TURBULENT FLOW

The University of Washington, Seattle, U.S.A.
8–11 August 1983

Organizing committee

C. Taylor
University College of Swansea, U.K.

J. A. Johnson
Weyerhaeuser Company, Tacoma, U.S.A.

R. Smith
College of Forest Resources, University of Washington, Seattle, U.S.A.

Advisory committee

P. M. Gresho
Lawrence Livermore Laboratories, California, U.S.A.

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The University of British Columbia, Canada

W. Habashi
Concordia University, Canada

G. Keramidas
Naval Research Laboratory, Washington, D.C., U.S.A.

B. A. Schrefler
University of Padova, Italy

Objectives

The objectives of this conference are similar to those of the first held in Swansea, 1978, and the second, held at Venice, 1981. Again the main objective is to consolidate the recent advances in the application of numerical techniques, particularly finite difference and finite element methods, to solve laminar and turbulent flow problems. Both techniques have received considerable attention in recent years and their application and development is continually expanding. It is hoped that the conference will provide a forum for numerical analysts to present new numerical methods and applications and experimentalists to present a comparison between measured quantities and calculated values using standard numerical techniques. The subject matter should be of interest to both researchers and industry.

Call for papers

Abstracts are invited on all research and practical application related to laminar and turbulent flow. A provisional list of possible areas of interest is as below.

Provisional session headings

Laminar Flow
Lubrication
Turbulent Flow
Boundary Layers
Flow with Separation
Estuary and Coastline Hydrodynamics
Flow in Rivers and Channels
Turbo Machinery
Meteorology
Reactor Technology
Free and Forced Convection
Coupled Conduction and Convection
Turbulent Heat Transfer
Explosions
Scientific and Industrial Applications

Abstracts, of approximately 500 words in length, should be submitted for consideration before 1 September 1982, whether their papers have been accepted. Final manuscripts will be required by 1 March 1983, for inclusion in the Conference Proceedings. The proceedings will be made available world-wide after the Conference and authors will be encouraged to submit an extended form of their papers to *The International Journal for Numerical Methods in Fluids* (Wiley).

Abstracts and requests for further information should be addressed to

Dr. C. TAYLOR,
Department of Civil Engineering,
University College of Swansea,
Singleton Park,
SWANSEA SA2 8PP, U.K.

INTERNATIONAL CONFERENCE ON NUMERICAL METHODS IN THERMAL PROBLEMS

The University of Washington, Seattle, U.S.A.
2–5 August 1983

Organizing committee

R. W. Lewis
University College of Swansea, Wales, U.K.

J. A. Johnson
Weyerhaeuser Company, Tacoma, U.S.A.

R. Smith
College of Forest Resources, University of Washington, Seattle, U.S.A.

Programme committee

G. De Vahl Davis	Sydney, Australia
L. Imre	Budapest, Hungary
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S. V. Patankar	Minnesota, USA
J. Rae	Harwell, England
B. A. Schrefler	Padova, Italy
O. C. Zienkiewicz	Swansea, Wales

Objectives

The objectives of this conference are to consolidate the advances made in the numerical modelling of thermal problems which were presented at Swansea in 1979 and at Venice in 1981. The use of numerical techniques, such as the finite element and finite difference methods, is essential for solving problems of extreme complexity or difficult mathematical representations, which can occur in a wide range of disciplines.

It is expected that this conference will continue the unifying theme of the previous conferences in bringing together engineers and scientists to discuss thermal problems from a diverse spectrum of disciplines and ultimately produce a text on the latest 'state of the art'. Keynote speakers will present lectures on the diverse nature of the problems and the similarities of the solution techniques used would be emphasized.

Call for papers

Abstracts are invited on topics which deal with numerical methods of computation for thermal problems and also their application to practical studies. The abstracts, of approximately 500 words in length, should be submitted before 1 September 1982. The authors will be informed by 1 November 1982, whether or not their papers have been accepted for presentation. Final manuscripts will be required by 1 March 1983 for inclusion in the conference proceedings. A text of the accepted papers will be available at the conference. Authors will be encouraged to submit an extended form of their papers for consideration in the *International Journal for Numerical Methods in Engineering*.

A provisional list of possible areas of interest is as follows:
Heat Conduction
Phase Change
Heat and Mass Transfer in Porous Bodies
Geothermal Reservoir Simulation
Thermal and Drying Stresses
Industrial and Scientific Applications
Solar Energy
Turbulent Heat Transfer
Fire and Combustion Simulation
Coupled Conduction and Convection
Mathematical and Computational Techniques
Free and Forced Convection
Nuclear Waste Disposal

Correspondence

Abstracts and requests for further information should be addressed to

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NEW BOOK AVAILABLE

INTERDISCIPLINARY FINITE ELEMENT ANALYSIS

Proceedings of the U.S.–Japan Seminar held at Cornell University, August 1978

Edited by J. F. Abel, T. Kawai and S. F. Shen
Published by Cornell University College of Engineering, 1981.
Cloth bound, xiv+834 pages   Price $33·00 (including postage)

The U.S.–Japan Seminar on Interdisciplinary Finite Element Analysis was designed to bring together several of the leading practitioners from the U.S., Japan and Canada in the area of finite element analysis applied to problems which encompass disparate engineering disciplines. Among the contributors are civil engineers, environmental engineers, geologists, mechanical engineers, electrical engineers, applied mathematicians, aerospace engineers, nuclear engineers and applied mechanicians. This volume is a record of all the formal papers and some of the informal discussion of the conference.

As the capabilities in digital computation and the related theories of engineering analysis have grown, so has the interest of the scientific community grown in tackling problems of a complexity that had not previously been possible. Not only are such problems often non-linear, but characteristically the most challenging problems of current importance also tie together engineering fields which have heretofore been disparate. Such problems are referred to as 'interdisciplinary'. With the cross-flow of ideas from one engineering field to another, the finite element method has emerged as one of the foremost analytical tools for the solution of interdisciplinary problems.

A major purpose of this volume is to identify situations in which cross-fertilization has occurred or where the potential for it to occur is substantial. The editors hope that this book will serve to stimulate and assist further efforts to obtain computing solutions to multidisciplinary problems. The volume is divided into four main sections as follows: 1. Basic theory, formulative problems and general techniques
2. Flow problems
3. Interdisciplinary analysis
4. Numerical analysis, computer program technology and computer graphics