

ANNOUNCEMENTS

A Special Issue on Parallel, Vector and Super Computing of Fluid Flows

Following many enquiries about papers on the subject of advanced numerical methods in fluids, the *International Journal for Numerical Methods in Fluids* will organize special issues on the Parallel (and/or), Vector (and/or) and Super Computing (abbreviated as PVSC) in fluid dynamics. Papers from all areas and disciplines of computational fluid dynamics will be considered. Submitted papers will include topics from the broad area of PVSC, for example:

- analysis of PVSC schemes.
- applications of schemes on PVSC machines.
- adapting and/or tailoring known schemes and techniques.
- performance evaluation of numerical fluid

dynamics codes, schemes and techniques on a specific PVSC engine.

- software tools for PVSC machines.
- PVSC algorithms and techniques.
- large scale numerical fluid dynamics.

State of the art articles and review papers are encouraged. It is expected that more than one issue of the journal will be devoted to this important subject.

Papers for consideration and other enquiries should be sent to:

Dr. Avi Lin
Department of Mathematics
Temple University
Philadelphia, PA 19122
U.S.A.

12TH CANADIAN CONGRESS OF APPLIED MECHANICS-CANCAM '89

Carleton University, Ottawa, Canada 28 May-2 June, 1989

The *12th Canadian Congress of Applied Mechanics* will be held on 28 May until 2 June, 1989 at Carleton University in Ottawa, Ontario.

The congresses, which take place once every two years are intended:

- to provide an international forum for communicating recent and projected advances in all fields of applied mechanics,
- to assemble and provide an opportunity for direct information exchange among delegates from industry, research, and academic institutions.

General lectures are given in various disciplines of applied mechanics by invited specialists of international reputation. At *CANCAM '89* the keynote speakers will be:

- H. Leipholz (University of Waterloo, Canada)
Honorary Chairman of *CANCAM '89*
- T. J. R. Hughes (Stanford University, U.S.A.)
- S. Nemat-Nasser (University of California, San Diego, U.S.A.)
- J. T. Oden (University of Texas, U.S.A.)

- A. J. M. Spencer, FRS (University of Nottingham, U.K.)

Original papers are solicited in all areas of solid mechanics, fluid mechanics, mathematical and experimental methods, and interdisciplinary topics such as biomechanics, geomechanics, fluid-structure interaction, system dynamics, robotics, expert systems, etc. Paper selection will be based on the review of an extended abstract of approximately 1000 words, which should be typed on approved mats. All submissions are reviewed and the accepted abstracts will appear in the Congress Proceedings. *The deadline for the submission of papers is 1 October 1988.* Interested researchers and authors can obtain further information, typing mats, etc. from:

Secretary *CANCAM '89*
Department of Civil Engineering
Carleton University, Ottawa, Ontario,
Canada, K1S 5B6
Telephone: (613) 564-6768, Telex: 053-4232

POLYMODEL XI

Flow Modelling in Industrial Processes
Teesside Polytechnic, 24–25 May 1988

The eleventh of the annual POLYMODEL conferences will be held at Teesside Polytechnic on 24 and 25 May 1988. Polymodel is organized by a joint industrial/academic group with several research activities in computational fluid dynamics. The emphasis of the conference will be on the computation of confined flows which commonly occur in industrial processes. There will be four half day sessions on:

Newtonian Flow
Non-Newtonian Flow
Multiphase Flow
Compressible Flow

Invited papers will be presented by:
Professor M. J. Crochet (Université Catholique de Louvain, Belgium)

Professor M. Cross (Thames Polytechnic)
Professor D. B. Spalding (Imperial College)
Professor P. Stow (Rolls Royce Plc, Derby)
Professor C. Taylor (University College of Swansea)

The conference fee including meals and a bound copy of the proceedings is £95. Inexpensive accommodation is available.

Offers of papers and requests for information should be sent to the conference secretary:

Dr A. W. Bush
Department of Mathematics and Statistics
Teesside Polytechnic
Middlesbrough
Cleveland TS1 3BA. Telephone: (0642) 218121
Ext 4376.

SYMPOSIUM ON THE EFFECTIVE SOLUTION OF EXTREMELY LARGE PROBLEMS IN COMPUTATIONAL MECHANICS

Mystic, Connecticut, 18–19 October, 1988

Sponsored jointly by: Office of Naval Research, Naval Underwater Systems
Center and Worcester Polytechnic Institute

There is a critical need to solve numerical problems in solid and fluid mechanics that exceeds the solution capacity of current and foreseeable supercomputers. The issue revolves around the number of degrees of freedom, the simultaneous equations that one needs to describe accurately the problems, and the computer storage and speed limitations which prohibit such solutions. This symposium will explore the latest work in an attempt to solve extremely large problems with techniques such as iterative solvers, dynamic substructuring and combining the boundary element method with the finite element method, as well as algorithms which exploit parallel computing. It is not the intent to exclude new hardware concepts but to include new hardware only when it supports the solution of large problems in some way. This symposium is designed to offer a platform for new ideas that may expand the bounds of current limi-

tations to problem size. One could reasonably expect the outcome of such a symposium to define a new set of research questions which arise when hundreds of thousands of equations have to be handled, and to shed light on the relative importance of numerical methods, algorithms and hardware for super-large problems.

Submitted Papers: Submit a one to two page extended abstract which includes one key figure showing preliminary results to:

Mr. Donald Cox
NUSC, Code 44
New London
CT 06320, U.S.A.
or Professor Sunil Saigal
Computer Aided Engineering Center
Worcester Polytechnic Institute
100 Institute Road
Worcester, MA 01609, U.S.A.