Call for Papers

ASME FLUIDS ENGINEERING DIVISION MEETINGS

SYMPOSIUM ON QUANTIFICATION OF UNCERTAINTY IN COMPUTATIONAL FLUID DYNAMICS

Washington, DC, U.S.A.

20–24 June 1993

The Coordinating Group on Computational Fluid Dynamics (CGCFD) and the Fluid Mechanics Committee of the ASME Fluids Engineering Division (FED) is organizing a Symposium on the Quantification of Numerical Uncertainty in Computational Fluid Dynamic (CFD) Predictions.

PURPOSE AND SCOPE

Computational Fluid Dynamics (CFD) has established itself as a viable research technique and has demonstrated its ability, when used correctly, to accurately reproduce complex flow physics. However, the successes in CFD simulations has spawned a new responsibility and focus for CFD, namely quantification of numerical uncertainty. Numerical experiments are now possible, therefore, as in physical experiments a statement of numerical accuracy is a logical extension to the method.

The purpose of this symposium is to promote the discussion and interchange of current information related to developing techniques for quantification of numerical uncertainty. Papers are solicited in three broad areas: (1) characterization of uncertainty (i.e. what are the appropriate measures of numerical uncertainty?); (2) identification of the sources of errors in numerical simulations; and (3) methods for computing local and global magnitudes of numerical uncertainty.

ORGANIZERS

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Professor C. J. Chen Department of Mechanical Engineering University of Iowa Iowa City, IA 52242, U.S.A. *Tel:* (319) 335-5673 Dr Ing Georg Scheurer Advanced Scientific Computing GmbH Am Gangsteig 26 D-8150 Holzkirchen Germany *Tel:* (49) 8024-8852 *Fax:* (49) 8024-49304

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SYMPOSIUM ON DEVICES FOR FLOW MEASUREMENT AND CONTROL

Washington, DC, U.S.A.

20–24 June 1993

PURPOSE

The purpose of this symposium is to provide a means of interdisciplinary exchange of ideas on the mechatronic devices (sensors and actuators) used to measure and control fluid flow.

ORGANIZATION AND SCOPE

The symposium is organized by the Coordinating Group for Fluid Measurements of the ASME Fluids Engineering Division. Papers solicited should pertain to flow parameters, measurement techniques (sensors), or control devices (actuators) such as:

parameters: mass flow, heat transfer, density, temperature, pressure, viscosity measurement techniques (sensors): thick film, thin film, acoustic, optical, holographic control devices (actuators): injectors, microstructures

ORGANIZERS

Dr Chester Blechinger Ford Motor Co. ETC LE-145 17000 Rotunda Drive Dearborn, MI 48121, U.S.A. Tel: (313) 337-1029 Fax: (313) 337-9671 Professor S. A. Sherif Department of Mechanical Engineering University of Florida Gainesville, FL 32611-2050, U.S.A. *Tel:* (904) 392-7821 *Fax:* (904) 392-1071

THIRD INTERNATIONAL SYMPOSIUM ON THERMAL ANEMOMETRY

Washington, DC, U.S.A.

20-24 June 1993

PURPOSE

Thermal anemometry remains one of the main tools used in fluid mechanics research. Its operation is governed by many interrelated phenomena and the interpretation of the electrical signal produced by the anemometer is still an area of uncertainty. New manufacturing techniques along with new research interests have stimulated new probe designs as well as unique applications for thermal anemometry. The purpose of this symposium is to provide a forum for researchers to discuss recent advances in thermal anemometry.

ORGANIZATION AND SCOPE

This symposium is organized by the Coordinating Group for Fluid Measurements of the Fluids Engineering Division of the ASME. Eight technical sessions with seven invited papers are planned. It is expected that sessions will focus on the following topics: anemometer stability and response, calibration techniques, multi-element probes, effects of temperature and concentration variation, measurements in liquids, very low speed flows, supersonic flows, and measurements in complex flows.

ORGANIZERS

Professor David E. Stock (Symposium Chair) Mechanical & Materials Engineering Washington State University Pullman, WA 99164-2920, U.S.A. *Tel:* 509-335-3223 *Fax:* 509-335-7632

Professor S. A. Sherif Dept of Mechanical Engineering University of Florida Gainesville, FL 32611, U.S.A. *Tel:* 904-392-7821 *Fax:* 904-392-1071 Professor A. J. Smits Aerospace & Mechanical Engineering Princeton University Princeton, NJ 08544, U.S.A. Tel: 609-258-5117 Fax: 609-258-6109

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