

## ANNOUNCEMENTS

### PHYSICAL MODELLING OF GAS-LIQUID FLOWS

Institut de Mécanique des Fluides, Toulouse, France

29 May – 3 June 1989

The "Institut Polytechnique de Toulouse" is organizing a short course on basic and advanced principles for physical modelling of gas liquid flows, including laboratories to demonstrate physical phenomena and instrumentations.

#### *Lecturers*

- **Dr P. Andreussi**, University of Pisa, Italy.
- **Dr K. Bendiksen**, University of Oslo, Norway.
- **Dr A. E. Dukler**, University of Houston, U.S.A.
- **Dr J. Fabre**, Institut National Polytechnique de Toulouse, France.
- **Dr L. Masbernat**, Institut National Polytechnique de Toulouse, France.

#### COURSE OUTLINE

##### *Lectures*

- **Introductory Concepts**
  - Occurrence and application of gas-liquid flows
  - Effects of two-phase flow on transport
  - The role of flow pattern
  - Two-phase flow at zero gravity
- **Flow Pattern Transition Modelling**
  - Horizontal and inclined flows
  - Effects of transient and phase change
- **Modelling Flow Pattern Transitions**
  - Vertical and inclined flows
  - Zero gravity flows
- **Horizontal Stratified Flow**
  - Hold up, interfacial shear stress and heat transfer
- **Bubbly Flow**
  - Hold up, wall shear stress and heat transfer
- **Annular Flow and Entrainment**
  - Smooth films and heat transfer
  - Interfacial shear stress
  - Entrainment and deposition
- **Intermittent Flow**
  - Horizontal flow
  - Vertical flow
  - Heat transfer
  - Zero gravity flow
- **Drift Flux Modelling**
- **Two Fluid Modelling**
  - Numerical methods for steady and transient flows
  - Code development
  - Terrain slugging

##### *Laboratory sessions*

- Horizontal gas-liquid flow pattern
- Horizontal stratified flow (laser anemometry and hot film probes)
- Vertical gas-liquid flow patterns
- Measuring methods in two-phase flow

- Terrain slugging
- Unsteady horizontal two-phase flow

*Hands on use of existing computer codes*

- Steady gas-liquid flows in pipeline systems
- Horizontal transient gas-liquid flows in pipes

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 France  
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## NINTH INTERNATIONAL HEAT TRANSFER CONFERENCE

Jerusalem, Israel

*19–24 August 1990*

### ABOUT THE CONFERENCE

The International Heat Transfer Conferences are held every 4 years with the purpose of bringing together the international heat transfer community. The conference will cover both fundamental and applied topics in heat transfer.

The format of the conference will be arranged with the major elements being: general papers presented in poster sessions; keynote papers by invited speakers; panel sessions on special subjects; film and video sessions; equipment and book exhibitions; and social and tour activities.

### CALL FOR GENERAL PAPERS

The purpose of general papers is to report original, unpublished findings in heat transfer. All general papers will be reviewed under the direction of the International Science Committee. Accepted papers will be required on author-prepared mats in English only, and will be published in the proceedings of the conference. Authors are required to present their papers in poster sessions personally.

Submissions are welcome by authors from any country. Authors wishing to present a general paper (or film-video materials) should submit three copies of a preliminary abstract, typewritten in English. These should reach the appropriate member of the International Science Committee, as listed below, by **1 June 1989**. Authors of abstracts considered appropriate for further evaluation will be informed by **1 July 1989** and will be provided with mats and instructions for the preparation of the complete manuscripts. These must be submitted for review in mat format by **1 October 1989** to the appropriate member of the International Science Committee, together with a final abstract of about 200 words. Final submission date following review is **1 February 1990**.

There will be approximately 450 general papers, all presented in poster sessions organized under specific topics. Twenty-eight keynote speakers have been scheduled.

#### Members of the International Science Committee:

Israel—G. Hetsroni, *Chairman*  
 Canada—S. Y. Ahmad  
 F.R.G.—E. Hahne  
 France—M. Cornbarnous  
 India—M. V. Krishnamurthy  
 Italy—M. Cumo  
 Japan—S. Kotake

The Netherlands—C. J. Hoogendoorn  
 P.R. China—B. X. Wang  
 U.K.—G. F. Hewitt  
 U.S.A.—L. S. Fletcher  
 U.S.S.R.—M. S. Styrikovich  
 Yugoslavia—M. Majcen