

ANNOUNCEMENTS

PHYSICAL MODELLING OF GAS-LIQUID FLOWS

A SHORT COURSE ON BASIC AND ADVANCED PRINCIPLES INCLUDING LABORATORIES TO DEMONSTRATE PHYSICAL PHENOMENA AND INSTRUMENTATION

Pisa, Italy
21-26 May 1990

The course is organized by the Department of Chemical Engineering of the University of Pisa and the Ecole Nationale d'Electrotechnique, d'Electronique, d'Informatique et d'Hydraulique of the Institut National Polytechnique de Toulouse, France.

Objectives

The basic framework for the solution of a wide variety of gas-liquid flow problems is now well-understood, much of the work having been completed in recent years. It is the objective of this course to present this modern approach in sufficient detail so that those attending can apply the results to problems of design. In addition, this should prepare the participants to understand the new literature which emerges in the years to come.

During this course the facilities of the two-phase flow research laboratory of the University of Pisa will be available to participants. Demonstrations will be conducted in the two-phase flow loops and advanced instrumentation techniques will be shown with "hands on" experiments. An extra day is offered for "hands on" use of existing computer codes.

Correspondence

Please direct all correspondence and requests for additional information to:

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MODERN DEVELOPMENTS IN BOILING HEAT TRANSFER AND TWO-PHASE FLOW

Rensselaer Polytechnic Institute Troy, NY, U.S.A.

25-29 June 1990

A seminar will be held at Rensselaer on important new advances in multiphase science and their engineering applications. This seminar is intended for scientists and engineers working in the field of two-phase flow and heat transfer.

Topics to be covered in this seminar include:

- Two-fluid modeling techniques
- Wave propagation in two-phase flow
- Applied fractal and chaos theory
- Boiling heat transfer applications and augmentation
- Phase distribution and separation phenomena
- Critical flow
- Two-phase flow dynamics and instabilities
- Evaporation of thin liquid films

The registration fee is US \$150. This fee covers all lecture notes, breakfasts, luncheons and banquets during the seminar. For further information contact:

Office of Continuing Education
Rensselaer Polytechnic Institute
Troy, NY 12180-3590, U.S.A.
Tel.: (518) 276-8351

Call for Papers

FOURTH INTERNATIONAL SYMPOSIUM ON LIQUID-SOLID FLOWS

Seattle, Washington, U.S.A.
23-26 June 1991

The symposium is being organized by the ASME (FED-Multiphase Flow Committee), in collaboration with the ASCE (Committee on Granular Flow) and the JSME during the ASME-JSME Meeting in Seattle.

Purpose

The purpose of the symposium is to provide a forum for the presentation of new developments in particulate two-phase flow research: theory, computational methods, experimental results, fluid machinery and erosion wear. New concepts and innovative methods of investigation are encouraged. Liquid-solid flows are widely applied in industrial installations and require specific computational methods and experimental techniques. Typical applications are in mechanical, mining and chemical processes, slurry transportation, paper industry processes and nuclear reactors.

Scope

Contributed papers are solicited in the following areas:

- Modeling liquid-solid mixture flows, particle dynamics and phase interactions
- Multicomponent flow
- Experimental results, specific instrumentation, flow visualization and LDA
- Particle-wall interaction
- Two-phase flow in fluid machinery
- Applications

The following sessions are tentatively planned:

Liquid-solid flow modeling	Multicomponent flow
Micromechanical models	Slurry flow measurements
Numerical methods	Surface phenomena, applications

Selection of papers and deadlines

- **Abstracts are due by 10 July 1990.** Three copies of a one-page abstract that clearly states the purpose, results and conclusions should be provided.
- Notification of accepted abstracts by 10 August 1990.
- **Manuscripts submitted by 1 October 1990.** Authors must submit three copies of the complete manuscript for review. Manuscripts are to be prepared in accordance with ASME standards (see for instance *Journal of Fluids Engineering*) and should not exceed 24 pages including double-spaced typewritten text, figures and tables.
- Notification of accepted manuscript by 15 December 1990. Editorial comments will be enclosed in the mail.
- ASME mats of the complete paper by 15 February 1990. Author prepared papers presented at the symposium will be *bound in a volume* which will be available at the meeting. Papers accepted for the symposium may also be submitted for a journal publication.

Abstracts should be addressed to:

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