



## ANNOUNCEMENTS

Organizational changes at the  
International Centre for Heat and Mass Transfer

The International Centre for Heat and Mass Transfer (ICHMT) has been going through major organizational changes over the past several months. It now has new statutes and by-laws, a new home for the Secretariat, a new venue for meetings, a new Acting Secretary General, and a renewed enthusiasm for serving the scientific community of heat and mass transfer. Some future activities of the ICHMT are listed below. It will be our pleasure to see you at these meetings.

(1) *International Seminar on 'Heat and Mass Transfer in Severe Nuclear Reactor Accidents'*

Chairman: J. T. Rogers  
Date: 21-26 May 1995  
Place: Golden Dolphin Holiday Village,  
Cesme, Izmir, Turkey  
Host: ICHMT Secretariat

(2) *International Seminar on 'Heat Transfer Enhancement in Power Machinery'*

Chairman: A. I. Leontiev  
Date: 26-30 May 1995  
Place: Moscow, Russia  
Host: Moscow State Technical University

(3) *International Symposium on 'Radiative Heat Transfer'*

Chairman: M. Pinar Menguc  
Date: 14-18 August 1995  
Place: Kusadası, Turkey  
Host: ICHMT Secretariat

For further information, please write to:

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## Short courses on multiphase flow and heat transfer: bases, modelling and applications in (a) the nuclear power industry, and (b) the process industries

Hosted by the Swiss Federal Institute of Technology (ETH), Zurich, Switzerland,  
20-24 March 1995

These modular courses feature coordinated, comprehensive series of lectures by experts in their fields. Part I is of interest to practicing engineers and to researchers who wish to obtain a condensed and critical view of the present fundamental knowledge, modelling and basic numerical techniques in two-phase flow.

Part IIA covers two-phase flow phenomena and applications of particular interest to the nuclear industry, with emphasis on severe accidents and on advanced light water reactors (LWRs).

Part IIB covers in depth computational modelling and computational fluid dynamics (CFD) techniques.

The courses aim at an interdisciplinary transfer of knowledge between the various industries for which two-phase flows are important (nuclear, process, cryogenics, petroleum, etc.).

## THE LECTURERS

**S. Banerjee**, Professor at the Department of Chemical and Nuclear Engineering, *University of California—Santa Barbara*.

**M. L. Corradini**, Professor of Nuclear Engineering and Engineering Physics at the *University of Wisconsin, Madison*.

**G. Hetsroni**, Danciger Professor of Engineering at *Technion—Israel Institute of Technology*.

**G. F. Hewitt**, Professor of Chemical Engineering at *Imperial College, London*.

**R. T. Lahey, Jr.**, Edward E. Hood, Jr. Professor of Engineering at *Rensselaer, U.S.A.* and Director of the *Center for Multiphase Research*.

**D. B. Spalding**, FRS, FEng., Managing Director of *Con-*

*centration Heat & Momentum Ltd.* and Emeritus Professor of Heat Transfer at *Imperial College*, London.

**G. Yadigaroglu**, Professor of Nuclear Engineering at the *Swiss Federal Institute of Technology* in Zurich and Head of the Thermal-Hydraulics Laboratory at the *Paul Scherrer Institute*.

### CONTENTS OF LECTURES

#### *Part I. Bases (3 days)*

- (1) Introduction and basics
- (2) Basic equations
- (3) Flow regimes, pressure drop and void fraction
- (4) Phenomenological models: churn and annular flows
- (5) Phenomenological models: slug flows
- (6) Closure relationships
- (7) Two-phase heat transfer
- (8) Post-dryout heat transfer and rewetting
- (9) Numerical methods
- (10) Computer codes
- (11) Instabilities in two-phase flow
- (12) Multicomponent systems

#### *Part II.A. Water reactor applications (1½ days)*

- (13A) LOCA phenomena
- (14A) Severe accidents

- (15A) Codes for transient and accident analysis
- (16A) Multiphase containment phenomena in advanced LWRs
- (17A) Steam generators
- (18A) Vapor explosions

#### *Part II.B. Computational modelling (1½ days)*

- (13B) CFD modelling: bases
- (14B) Computer simulation of turbulent systems: basic principles
- (15B) CFD modelling: applications in dispersed systems
- (16B) CFD modelling applications: separated flows
- (17B) CFD modelling of phase distribution and separation phenomena
- (18B) Computer simulation of turbulent systems: applications

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