

## Conference on Optical Methods in Flow and Particle Diagnostics

International Congress on Applications of Lasers and Electro-optics,  
Santa Clara, California, U.S.A., 30 October–4 November 1988

The objectives of this conference are to provide a forum for the presentation of recent developments in optics for flow measurement, electro-optical instrumentation and novel experimental applications. Methods of interest include laser Doppler velocimetry for single- and multi-phase flows, laser speckle velocimetry, particle image velocimetry, holographic techniques, single-point and whole-field methods for concentration and temperature, and particle sizing by light scattering and imaging.

For further information please contact :

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or

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## Second International Symposium on Multi-phase Flow and Heat Transfer

Xi'an, China, 21–24 June 1989

### SCOPE OF THE SYMPOSIUM

In this symposium, papers on the following topics are cordially invited :

- (1) multi-phase fundamentals ;
- (2) pressure drops ;
- (3) two-phase/multi-phase instabilities ;
- (4) boiling heat transfer ;
- (5) condensing heat transfer ;
- (6) heat transfer enhancement ;
- (7) gas–solid flows ;
- (8) pneumatic conveying ;
- (9) fluidized bed combustion and reactors ;
- (10) phase separation ;
- (11) two-phase/multi-phase measurements ;
- (12) nuclear reactor safety.

### CALL FOR PAPERS

Please send title and abstract of at least 1000 words as soon as possible, but not later than 30 July 1988 to : Prof. Ting-Kuan Chen, Engineering Thermophysics Research Institute, Xi'an Jiaotong University, Xi'an, Shaanxi Province, China.

The authors of the selected abstracts will be informed by 30 August 1988. Final manuscripts (one original and two copies) will be due by 31 December 1988.

### REGISTRATION FEE

The U.S. \$300 registration fee includes all teabreak refreshments, the reception, the banquet, a sightseeing tour and a copy of the symposium proceedings of condensed papers. The fee for non-participants (U.S. \$100) includes the banquet and a sightseeing tour.

## International Symposium on Turbulence Modification in Dispersed Multiphase Flows

ASME Spring Annual Meeting, San Diego, California, U.S.A., 9–12 July 1989

### PURPOSE

Several experiments have shown that the turbulence of a carrier fluid is considerably modified by the presence of dispersed particles or bubbles. Both reduction and enhancement of turbulent kinetic energies have been experimentally observed and a number of mechanisms have been discovered, which contribute to these phenomena. In parallel with the experimental results analytical and numerical studies are underway trying to explain and to model the complex interactions between the carrier fluid and the dispersed second phase.

The purpose of this international symposium is to provide a forum for researchers and to discuss current analytical, numerical and experimental developments in this area of multiphase flows.

### ORGANIZATION AND SCOPE

The symposium is organized by the Multiphase Flow Committee of the ASME Fluids Engineering Division. Three sessions are planned with emphasis on the fundamental aspects of turbulence modification due to a dispersed second phase. Two invited papers are planned. Contributed papers are solicited in (but not restricted to) the following areas :

- (1) new experimental results on turbulence enhancement or reduction in dispersed multiphase flows ;
- (2) the effect of sizes and shapes of particles or bubbles to fluid turbulence ;
- (3) turbulence closure equations with the presence of a dispersed phase ;
- (4) analytical approaches to the problem ;