

- (a) wide range of velocities—from low speed flows to flows at high Mach numbers;
- (b) working fluids dissociated or ionised; chemically reacting systems (including burning); molecular flow; multiphase systems;

(c) other conditions—the presence of electric or magnetic fields and heat and mass transfer.

These flows may find technical or research applications such as, e.g.

channel, nozzle and orifice flows,  
shock tubes, wind tunnels, etc.,  
gas-dynamic lasers,  
chemical, atomic reactors,  
plasmagenerators and almost all types of combustors,

MHD channels,  
flight and high Mach numbers.

Address correspondence to:

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On the contrary it is proposed that problems of the cosmical, astrophysical and extreme-temperature plasma gasdynamics and gas-dynamics of explosions will be omitted.

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## SECOND NATIONAL SYMPOSIUM ON NUMERICAL METHODS IN HEAT TRANSFER

Sponsored by the National Science Foundation and the Office of Naval Research

(28–30 September 1981)

To be held at University of Maryland, College Park, Maryland

### Scope

Six sessions are planned:

- (1) Finite Difference Method
- (2) Finite Element Method
- (3) Comparison of Finite Difference Methods and Finite Element Methods
- (4) Numerical Convective Instability
- (5) Other Numerical Methods
- (6) Applications to Heat Transfer Problems

### Abstracts

\* Prospective presentations which lie within the aforementioned scope are advised to stress also at least one of the following subjects: (a) improvement of existing methods (b) assessment of numerical properties such as stability, convergence and error bounds, (c) introduction of a novel scheme and (d) comparison of not less than two methods used to solve the same physical problem.

\* Three copies of an abstract of approximately 1000 words describing the definition, formulation, method(s) and sample results of the work should be submitted to:

Professor Tein-Mo Shih  
Department of Mechanical Engineering

University of Maryland  
College Park, MD 20742  
Phone: (301)454-2408

### Deadlines

Receipt of abstracts: March 1, 1981

Informing authors of acceptance: April 1, 1981

Receipt of final manuscripts: August 1, 1981

The conference proceedings will be published after the conference. Papers edited in the proceedings are presentations revised to incorporate reviewers' comments and judged to be of permanent value.

### Organizing committee

I. Babuska, Univ. of Maryland at College Park; J. deRis, Factory Mutual Research; D. K. Edwards, UCLA; B. A. Finlayson, Univ. of Washington at Seattle; H. B. Keller, Cal. Tech.; W. J. Minkowycz, Univ. of Illinois at Chicago Circle; S. V. Patankar, Univ. of Minnesota; S. F. Shen, Cornell Univ.; T. M. Shih, Univ. of Maryland at College Park; D. B. Spalding, Imperial College of Sci. & Tech.; E. M. Sparrow, Univ. of Minnesota; C. L. Tien, Univ. of California at Berkeley; K. T. Yang, Notre Dame Univ.