

## ANNOUNCEMENTS

### EUROMECH 43 COLLOQUIUM

#### Heat Transfer in Turbulent Boundary Layers with Variable Fluid Properties

Göttingen, FRG, 14–16 May 1973

##### First Announcement

The EUROMECH 43 COLLOQUIUM on *Heat Transfer in Turbulent Boundary Layers with Variable Fluid Properties* will be held at the DFVLR Research Center AVA Göttingen, D-3400 Göttingen, Bunsenstrasse 10, West Germany, from 14 to 16 May 1973.

The purpose of the EUROMECH COLLOQUIUM is to continue the intensive and successful collaboration between different research groups' activities involved in this subject in Europe. This collaboration was promoted by the EUROMECH 21 COLLOQUIUM *Turbulent and Transitional Boundary Layers and Heat Transfer in Compressible Flow* organized by Dr. R. Michel, ONERA, at the Ecole Nationale Supérieure de l'Aéronautique, Toulouse, France. This EUROMECH 43 COLLOQUIUM will be organized in the framework of Eurovisc founded after the EUROMECH 21 COLLOQUIUM.

The subject of the Colloquium is heat transfer in turbulent boundary layers with variable fluid properties, that means boundary layers at high speeds (supersonic or hypersonic flow), or at low speeds with severe heating. A considerable part of the conference will be devoted to experimental investigations. A part of the meeting will be concerned with discussions on the analysis of data, theoretical aspects, and computational methods. The following list of topics shall serve as a general guidance to the type of questions that

might be covered.

1. Heat transfer measurements
2. Total temperature, static pressure, and mass flow measurements in boundary layers
3. Experimental evaluation of local skin friction
4. Impact probe corrections due to viscous and displacement effects
5. Progress on optical methods for supersonic boundary layer investigations
6. History effects (longitudinal pressure and wall temperature variations)
7. Curvature effects
8. Determination of skin friction and heat transfer coefficients from boundary layer profile measurements
9. Hypotheses and models of turbulence
10. Computational methods.

If you wish to comment on this list of subjects, or to add other topics to the agenda, please do not hesitate to do so.

The agenda and ultimate working programme of the colloquium will certainly be shaped by the participants' contributions. It is hoped that in addition to contributed communications a few survey lectures can be solicited from qualified authors to stimulate most fruitful discussions.

The conference language will be English.

#### Heat Transfer and the Design and Operation of Heat Exchangers

Johannesburg, May 1973

The Johannesburg Branch of this Institution proposes to hold a joint Conference with the S.A. Institution of Chemical Engineers on "Heat transfer and the design and operation of heat exchangers" at the University of the Witwatersrand, Johannesburg, in May 1973.

The scope and theme of the Conference is heat transfer in a wide range of applications. We invite papers for presentation, on a range of topics which might include:

- (a) *Design, development and research*: material selection, design for performance, stress analysis, quality control, and testing of liquid-to-liquid, gas-to-gas, and gas-to-liquid heat exchangers.
- (b) *Process design*: system analysis, economic studies, computer optimisation techniques.

- (c) *Operation and maintenance*: installation and commissioning, reliability assurance maintenance planning.

Intending authors of papers are requested to submit synopses of about 200 words, preferably before the 31st December, 1972, to

The Secretary,  
The S.A.I.Mech.E. (Jhb. Branch),  
P.O. Box 61019,  
Marshalltown,  
Tvl.

Further details of this Conference will gladly be supplied to interested persons on request.