

phenomena and dynamics. The symposium has established itself as a major international conference in the area of rotating machinery, with the first three symposia held in 1985, 1988 and 1990.

#### *Scope*

Papers are solicited which deal with any aspect of thermo-fluid transport phenomena (mass, momentum, heat and energy transfer), seal and rotor dynamics, vibration and whirl, and related topics such as design and control of rotating machinery. All types of rotating machines, i.e. turbines (gas, steam, hydraulic and wind), pumps, compressors, fans, propellers and others will be considered. Modeling, theory, experiments and numerical methods and simulations are all appropriate. Papers may be results of original research or those which summarize a specific subject. Papers dealing with special topics such as dynamic interaction of rotating machinery with fluid and structures, innovative design concept and new applications, e.g. operation of rotating machinery in space environment, computer disc drives etc., are welcome.

#### *Selection of papers*

Initial selection will be made based on submitted abstracts of about 500 English words. The abstract should state clearly the objectives, results and conclusions. Final acceptance will be based on review of the complete manuscript. All accepted papers will be published in the proceedings which will be available at the meeting.

#### *Schedule*

<b>15 July 1991</b>	Three (3) copies of abstract due
<b>31 July 1991</b>	Notification of abstract acceptance
<b>15 September 1991</b>	Four (4) copies of full length manuscript due
<b>30 October 1991</b>	Notification of final paper acceptance
<b>15 December 1991</b>	Camera-ready manuscript due

*Abstracts should be sent to the Symposium Chairman:*

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*Symposium Cochairpersons:*

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## FOURTH EUROPEAN TURBULENCE CONFERENCE ETC-IV

Delft University of Technology, The Netherlands

*30 June–3 July 1992*

The *Fourth European Turbulence Conference*, held under the auspices of the European Mechanics Committee, will be devoted to fundamental aspects of turbulence of interest to engineers, physicists and mathematicians. Contributions are invited, particularly those reflecting new concepts, new methods or new data.

**Program**

Contributions in the form of oral presentations or posters are requested on the following general topics:

- Mixing and chemical reactions.
- Compressibility effects in turbulence.
- Simulation methods (both large-eddy and direct simulation).
- Particles/bubbles in turbulence.
- Coherent structures in 2-D and 3-D turbulence.
- Non-linear dynamical systems.
- Turbulence modelling.
- Statistical physics and turbulence.
- Novel experimental techniques (including visualization).
- Transition.

Invited lectures will be presented on the following topics (the names of invited speakers are still subject to confirmation):

- Non-linear dynamical systems: W. Eckhaus, The Netherlands.
- Statistical physics and turbulence: A. J. Libchaber, U.S.A.
- Turbulence modelling: P. Bradshaw, U.S.A.
- Simulation methods: M. Lesieur, France.
- Particle/bubbles in turbulence: F. Durst, Germany.
- Coherent structures in 2-D turbulence: P. G. Dritchel, England and B. Legras, France.
- Materials processing and turbulence, L. Katgerman, Alcan, England.

**Special session**

During the conference a special session will be devoted to the topic of: *cellular automata and fluid dynamics*. On this topic also contributions are invited. This special session will be organized by M. Ernst (University of Utrecht), D. Frenkel (Institute of Atomic and Molecular Physics, Amsterdam) and J. A. Somers (Shell Research Laboratory, Amsterdam).

**Participation**

The deadline for abstracts is **1 December 1991**. Abstracts should be submitted to

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Based on the abstracts, the Euromech Turbulence Subcommittee on Turbulence will decide by **1 March 1992** whether an abstract is selected for presentation. At that time a decision will be made for oral or poster presentation.