

LABORATOIRE DE MECANIQUE DES FLUIDES
de l'Ecole Centrale de Lyon
ECULLY (France)

Measuring Techniques in Transonic
and Supersonic Flows
in Cascades and Turbomachines

Proceedings of the Symposium
held in Lyon on October 15-16, 1981

A. Bölcş

Edité par l'ASSED

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FOREWORD

The 6th Meeting on "MEASURING TECHNIQUES IN TRANSONIC AND SUPERSONIC FLOWS IN CASCADE AND TURBOMACHINES" was held on the 15th and 16th october, 1981, at the ECOLE CENTRALE DE LYON, Ecully, France.

36 participants presented 18 contributions on the following topics : "Probe calibration problems", "Measurements and data reduction problems", "Optical measurement techniques", "Wet steam", "Other measurement techniques".

With the kind readiness of the authors, it is possible to print all the contributions in the present form, intended for distribution to the participants and other interested institutes. This limited publicity is chosen in order to preserve the spontaneity of the contributions to further meetings and the real work shop character with an active participation of everybody.

For example, following the discussion held at the end of the present meeting, several participants decide to calibrate, at several places, a probe which dimensions have been selected among those usually used. M. T. FRANSSON from EPF-LAUSANNE will coordinate all the informations. The results will be presented at the next Symposium.

Professor Dr.-Ing. H.E. GALLUS, of the Institut für Strahlantriebe und Turboarbeitsmaschinen, Technische Hochschule Aachen, has accepted to be the host for that Symposium, which is to be held in 1983/1984.

For the Fluid Mechanics Laboratory of E.C.L., it was an honour and a pleasure to act as an host at the last meeting and to show the work done in secondary flows problems by the turbomachinery section.

We would like to express special thanks to Professor MOIROUX, Director of E.C.L., Professor MATHIEU, Director of the Fluid Mechanics Laboratory, and the D.R.E.T., Paris, for his financial support.

G. BOIS

LIST OF THE PREVIOUS MEETINGS

1st Meeting, in 1969, at Von Karman Institute, Bruxelles

("Transonic cascades"; "Overpressure"; "Measurements behind cascades")

2nd Meeting, in 1971, at AVA, Göttingen.

("Choice of measurement location"; "Instationary effects due to shock-boundary layer interaction")

3rd Meeting, in 1974, at ONERA, Paris

("Comparison of probe types"; "Blockage problems due to probes")

4th Meeting, in 1976, at EPF-LAUSANNE

("Probes"; "Laser anemometry"; "New measuring techniques"; "Instationary effects")

5th Meeting, in 1979, at C.E.R.L., Leatherhead, England

("Probe effects"; "Flow measurement techniques"; "Loss and deviation problems"; "Laser anemometer"; "Wet steam")

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