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Numerical Methods in Fluid Dynamics

Lectures given at the 3rd 1983 Session of the
Centro Internazionale Matematico Estivo
(C.I.M.E.) held at Como, Italy, July 7–15, 1983

Edited by F. Brezzi



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PREFACE

The C.I.M.E. Course on Numerical Methods on Fluid Dynamics was held in Como from July 7 to July 15, 1983.

The course was intended to present a series of "state of the art" lectures by four lecturers. The stress was intended to be on the numerical techniques, their features, their success or failure on different problems. Four classes of methods were selected: Finite Difference Methods, Finite Element Methods, Spectral Methods and Particle Methods. The lectures were chosen among the leading experts in each of the four fields.

In the present book, the texts of all the lectures are collected so that they can provide an easy introduction to each class of methods for the beginner and, at the same time, a rather detailed description of the most recent and powerful techniques for the more experienced reader.

(F. Brezzi)

C.I.M.E. Session on "Numerical Methods in Fluid Dynamics"

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