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REVIEWS

SHORTER NOTICES

Flow Visualization III. Edited by W.-J. YANG. Hemisphere/Springer, 1985. 889 pp. $95.00 or DM 288.00.

This volume represents the Proceedings of the Third International Symposium on flow visualization, held in the University of Michigan, Ann Arbor, USA in September 1983. It contains over 150 contributions, most of them including black and white photographs, and covering a wide range of fluid dynamics. One third are in the section on methods, where the papers range over almost all possible methods and include both computer methods for image processing and image production from computed results. The remaining papers are arranged in thirteen areas of 'applications', where some bias is apparent towards fundamental topics such as separated flows, vortices and wakes. Direct applications range through ships, aircraft, cars, machinery, estuaries, combustion, and blood flow examples. Altogether, since the production of good visualization is often a first step towards understanding a flow, this book provides an indication of those problems and flows which are currently under investigation. In addition the many revealing photographs make browsing in this volume a pleasure.

The Efficient Use of Vector Computers with Emphasis on Computational Fluid Dynamics. Edited by W. SCHÖNAUER and W. GENTZSCH. Vieweg, 1986. 271 pp. £29.20.

This is the proceedings of a GAMM workshop and forms volume 12 of the publisher's series *Notes on Numerical Fluid Mechanics*. The emphasis is on the details of implementing the numerical schemes (finite difference, volume and element), rather than presenting results of the calculations. The articles deal mainly with the Euler and Navier–Stokes equations, but there are also papers on the shallow-water equations (one) and meteorology (two). As might be expected, most of the work has been performed on Cray-1 and Cyber 205 computers, with some information on the use of the Cray X-MP, but very little on the Fujitsu VP range.

There should be something of interest in this volume for most workers using supercomputers, but it will probably be of most use to beginners, and should help them develop codes that take full advantage of the special features of vector computers.

Aero- and Hydro-Acoustics. Edited by G. COMTE-BELLOT and J. E. FFOWCS WILLIAMS. Springer, 1986. 549 pp. DM 148.00 or $77.90.

This volume contains the 8 general invited lectures and 43 contributed papers at an IUTAM symposium held in Lyon in July 1985, in which 14 countries were represented by 150 participants. The papers are organized, as at the meeting, into sessions with titles 'Diffraction', 'Active Control', 'Source Mechanisms', 'Rotor Noise', 'Thermo-acoustics', 'Computational Acoustics', 'Hydroacoustics', 'Flow Noise', 'Aeroacoustics', 'Acoustics of Unstable Flows', and 'Flow-Acoustic Interaction', covering almost the full range of topics of current activity.