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## Photon Correlation Techniques in Fluid Mechanics

Ed. E. O. Schulz-DuBois

The 34 papers presented at the 5th International Conference on Photon Correlation Techniques include 20 which describe aspects of laser velocimetry and a further 6 concerned with details of the correlation technique. The range of applications is wide and includes a two-dimensional wake, ship wakes, a wing, mixed convection in a cylinder, internal combustion engines, a transonic cascade and turbomachinery. The papers are short and tend to be demonstrative rather than to provide serious attempts to describe fluid-dynamic phenomena. It appears that all papers presented at the Conference are reproduced in the volume and without editing.

The volume is likely to be useful to readers of Heat and Fluid Flow mainly because it reveals the

growing range of applications of the photon-correlation technique for the measurement of velocity. It does not provide a balanced view, in that the advantages of the technique, relative to pressure probes, hot-wire, flying hot-wire and pulsed wire anemometry and to alternative methods of processing Doppler and two-spot signals, are not made clear. This is not the fault of the volume but readers should be aware of its narrow perspective, and appraise the possibilities of alternative and probably simpler techniques.

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### Books received

Computational Methods for Turbulent Transonic & Viscous Flows, *J. A. Essers*, \$49.95, pp 450, Hemisphere Publishing Corporation

Convection in Liquids, *J. K. Platten and J. C. Legros*, DM 180.00 (\$71.50 approx), Springer-Verlag

Lehrbuch der Reaktortechnik, \$19.90 (DM 48), pp 242, Springer-Verlag

Numerical Modelling in Hydraulics and Water Resources (20th Congress of the International Association for Hydraulic Research) pp 115, IAHR

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Energy Storage, £42.00, pp 316, BHRA

Physical Modelling of Multiphase Flow, *ed. H. S. Stephens and C. A. Stapleton*, £30.00, pp 537, BHRA

Cryocoolers—Part 1: Fundamentals, *Graham Walker*, \$49.50, pp 365, Plenum Press

Waste Heat: Utilization and Management, *Subrata Sengupta and Samuel S. Lee*, \$112.60 (DM 290), pp 1010, Springer-Verlag

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Inclusion of a title in this section does not necessarily preclude subsequent review