

Preface

New Stage of PIV Research



Kawahashi, M.

Particle Image Velocimetry (PIV) has been established as practical and powerful diagnostic skill of experimental fluid flow analysis during the past decade, and it intends to become one of the standard methods of velocity field measurements as a result of advancing of the system evaluation and uncertainty analysis. The application of the method expands to the measurement in wide range velocity and spatial scaling in various fields because of recent development of new devices and techniques such as high-resolution CCD camera, three-components (3C) or three-dimensional (3D) system, high-resolution evaluation algorithm, and so on. Especially PIV measurements in high-speed flows, multi-phase flows and micro scale flows come into prominence.

The development process of PIV tends to have appeared well in the papers presented in many international conferences such as the International Workshop on PIV which has been held two times in the past since 1995. Under this situation, the Third International Workshop on PIV was held in Santa Barbara in September 1999. At the workshop, many excellent papers, which would contribute to future PIV development, were presented. The present volume was bound up the papers, which are mostly the selected papers of the Third International Workshop on PIV. The papers provide us important suggestions and prospects for future research works on PIV.

Managing Editor

Masaaki Kawahashi