PROCEEDINGS OF THE FOURTH ASIAN SYMPOSIUM ON VISUALIZATION

EDITED BY Q. D. WEI

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The Fourth Asian Symposium on Visualization (ASV'96)

Organized by

Chinese Society for Flow Visualization

Sponsoring Societies

China Aerodynamics Research Society
The Chinese Society of Theoretical and Applied Mechanics
Chinese Image and Graphic Association
The Visualization Society of Japan

History of the Asian Symposium on Visualization

First Symposium (The First China-Japan Symposium on Flow Visualization)
May 24-28, 1988, Beijing, China
Chairman Q. X. Lian

Second Symposium (The Second China-Japan Symposium on Visualization)
May 12-24, 1992, Hangzhou, China
Chairman F. G. Zhuang

Third Symposium (The Third Asian Symposium on Visualization)
May 15-20, 1994, Chiba, Japan
Chairman Y. Nakayama

Organization of Symposium

Chairman: Qing-Ding WEI

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Preface

The Fourth Asian Symposium on Visualization (ASV'96, May 15-18, 1996) is a continuation of the previous three symposiums whose names as well as scopes have changed significantly. The first one (1988, Beijing) was called as First China-Japan Symposium on Flow Visualization, while second (1992, Hangzhou) called as Second China-Japan Symposium on Visualization and the last one (1994, Chiba, Japan) was named as Third Asian Symposium on Visualization. Such an evolution of the names reflects the great advances of visualization science in recent years.

About thirty years ago techniques of visualization were almost experimental methods, such as those using tracers, tufts, oil, chemical reaction, optical equipments and so on; the object of visualization is limited to objective reality, for instance, the air and water flows, the distributions of temperature, density, stress, etc. Since 1970s computational visualization has developed rapidly along with the dramatic advances of computer techniques. The objective world is no longer the only object of visualization. The virtual reality visualization is developing quickly. Meanwhile the experimental visualization has entered into a new phase with the aid of the advances of computer, laser and other new techniques. The particle image velocimetry (PIV) can be taken as a typical example in this respect. Now visualization has become a subject that is playing an active role in one way or another in many fields including science, engineering and even culture and art.

At this Symposium we will have three special lectures and six keynote lectures. More than one hundred and twenty papers will be presented, which were submitted by the authors from Asia, Europe, America and Africa.

I wish to express my deep appreciation to The Visualization Society of Japan, China Aerodynamics Research Society, The Chinese Society of Theoretical and Applied Mechanics, Chinese Image and Graphic Association, The National Natural Science Foundation of China and other units for their moral and financial support, without which it would have been impossible to organize and conduct this Symposium. I am also grateful to the members of the International Steering Committee and the Local Organizing Committee of ASV'96 for their advice and assistance during the course of preparing for the Symposium. Lastly, I sincerely appreciate all the participants for their cooperation and contributions.

Beijing, May 1996

Qing-Ding WEI
Chairman of ASV'96

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