

FOCUS ON MULTIDIMENSIONAL MICROSCOPY

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FOCUS ON MULTIDIMENSIONAL MICROSCOPY

Editors

P. C. Cheng

Advanced Microscopy and Imaging Laboratory,
Department of Electrical Engineering,
State University of New York at Buffalo, USA

P. P. Hwang

Institute of Zoology, Academia Sinica,
Taiwan, Republic of China

J. L. Wu

Institute of Zoology, Academia Sinica,
Taiwan, Republic of China

G. Wang

Department of Radiology,
University of Iowa, USA

H. Kim

Institute of Materials Science,
Ku-Jeou Institute of Science and Technology,
Republic of Korea



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Preface

This book covers various aspects of modern microscopy, with emphasis on multidimensional (three-dimensional and higher) and multimodality microscopy. The idea of compiling an authoritative and comprehensive book on modern microscopies was first discussed during the 8th International Conference on 3D Image Processing in Microscopy and the 7th International Conference on Confocal Microscopy. We were greatly encouraged by leading experts in the areas, and fortunately honored by their commitments in contributing chapters.

Given the rapid pace at which the field is evolving and expanding, we soon realized that the size of the book made it necessary to be in two volumes. In the first volume, the topics include multiphoton fluorescent microscopy, confocal microscopy, x-ray microscopy and microtomography, electron microscopy, probe microscopy and multidimensional image processing for microscopy. In the second volume, there are chapters demonstrating typical microscopical applications, both biological and material. The readership covers researchers in life sciences, optics, microscopy and image processing. Engineers and technologists should also find the content valuable.

The editorial process of these two volumes has been arduous and pleasant. We would like to acknowledge Ms. Tung Yu-chi and Mr. M. S. Park for their assistance on word processing. We are particularly grateful to Institute of Zoology, Academia Sinica, National Science Council, Republic of China, the Electron Microscopy Society of the Republic of China, and State University of New York for organizing the conference and financial support.

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