

# Preface

Solid-state imaging detector technology continues to revolutionize many disciplines. Astronomy and other aspects of low light level imaging, capture of low contrast images, and many areas of spectroscopy all benefit from the use of these devices. These devices offer high speed, sensitivity and dynamic range, making them desirable in a wide variety of applications, in industry, the military, general research, routine plant process control, and motion picture special effects.

Contained herein is a compilation of papers presented at the Fourth International Conference on Scientific Optical Imaging, held 2–5 December 1998, in Georgetown, Grand Cayman Island, British West Indies. These papers contain the latest information about commercial and academic research, development, and application in scientific optical imaging, from state-of-the-art devices to exciting explorations in space. Astronomers, spectroscopists, chemists, device and camera system developers and manufacturers, and optics specialists shared information about the projects in which they have been active.

The International Conference on Scientific Optical Imaging was organized for the purpose of providing a common ground for communication among diverse groups of scientists and engineers engaged in the design and application of optical array sensors. The conference program included lectures and posters presented by invited speakers. Plenary lectures given by world experts in their fields provided overviews of important aspects of optical imaging, such as design considerations, device fabrication and integration, and data reduction.

The program and venue were designed to place optimum emphasis on communication and cross-fertilization among disciplines. Lectures were held in the afternoons and evenings, leaving mornings free for informal discussion and interaction in the casual atmosphere of tropical Grand Cayman Island. Participants shared problems, solutions, and projected trends in this rapidly expanding field of endeavor. Developers, manufacturers, and users of this technology were able to interact in ways of mutual benefit and education to guide the development of new devices. Users from different fields exchanged ideas from their unique perspectives.

The editor would like to thank all participants for attending the conference and for sharing their knowledge and experience, particularly in the production of these papers. I would especially like to thank Ms. Christina Jarvis for her editorial assistance in preparing this volume, Ms. Julia Schaper for seeing to all arrangements for travel and accommodation, and David Jones and Jeffrey Giles, graduate student assistants, who provided able assistance to ensure that the conference was a great success.

