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Marija Strojnik
Gonzalo Paez
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Introduction

The 18th conference on Infrared Remote Sensing and Instrumentation was held in San Diego, California, 1 to 3 August 2010, as a part of SPIE Optics + Photonics 2010. San Diego looks prettier every year because of continued reconstruction of the downtown historical area next to the convention center. This year, though, the tourist crowds appeared somewhat less densely populated than in previous years, possibly due to the difficult economic times. Next year, we are meeting again in San Diego, 21 through 25 August 2011, for the 19th in the series of infrared remote sensing conferences, hopefully under brighter circumstances. At that time, the annual meeting will report on the progress of basic science, development of new technologies, and works of engineering achievements in the IR remote sensing.

Our conference this year focused on the description of experiments and missions to explore our environment, comprised of Earth and its atmosphere, space, and celestial bodies in the IR region of the electromagnetic spectrum. Also, we paid special attention to the development of new materials for the detector and the source fabrication. In the past year, it appears that the technology has received more funding than the missions and space experiments. The author participation at our conference did not appear to experience a significant change from that in the previous years. In the early nineties, Earth observation started to be important once again, as all the other planets in our solar system were surveyed at least once. The cycle of surveying other planets appears to be returning with the mission to the planet Mercury to determine its natural resources. We also had a strong participation from the Space Dynamic Laboratory with their excellent engineering successes.

About 60 papers were presented at the conference, with scientific participation from Europe, Asia, and North America. Most of the manuscripts are included in these proceedings. We wish to express our appreciation to the participants, the authors, and the active audience who contributed to the discussions, for making the extra effort of attending under these difficult economic conditions of restricted travel and carefully watched budgets.

While we are remembering the important contributions of so many people who have promoted a successful outcome for this conference, we have to include the significant collaborations of the committee members who are working year after year to organize sessions on the subject of their particular specialty and/or scientific projects. This year was no exception. The conference was effectively started with a one-day session on the technology development of novel IR detectors, organized by Dr. Gonzalo Paez, who is now also a chair of our conference.

German scientists under leadership of Prof. Dr. Gabriele Arnold presented a session on the instruments and mission to survey with higher resolution the surface

of the planet Mercury, named MERTIS. This group has been actively participating in the conference for the past 15 years. Now, Dr. Arnolds is joining the conference committee to assure strong participation of the German scientific community in future events.

Similarly, the engineering staff of Utah State University's Space Dynamic Laboratory have been active participants and session organizers, starting with Dr. Jack Kemp early on, followed by Dr. Gail Bingham more recently. As Gail and his wife are contemplating a new career of charitable and missionary work, we are pleased to welcome the active participation of Dr. Stanley Wellard as a member of the technical committee and a session organizer. CLARREO and FIRST are among the successful missions described in detail this year.

We are fortunate that the members of the technical committee agreed to chair the specialized sessions. They are knowledgeable and skillful, knowing how to start an interesting discussion over a breakthrough theme and, on occasion, how to tactfully close it to keep the conference on schedule. Their capable guidance of sessions is admired and appreciated.

Special thanks are due to the SPIE staff for providing friendly guidance and organizational support to meet all the deadlines. Organizing a technical conference and publishing a book of conference proceedings involves hard work by a team of dedicated people.

Marija Strojnik
Gonzalo Paez