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G. Groot Gregory
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Introduction

This year in San Diego, California, we held the fourth conference on Optics Education and Outreach. This conference reported on activities from sharing the wonder of science and optics to the formal processes used to educate the next generation of scientists and engineers.

The conference was well attended and included seven oral sessions and one poster session. Audience participation led to the sharing of new ideas with the speakers and attendees. Some talks included demonstrations of outreach materials and samples of tools used to inspire students. The oral sessions were titled: International Year of Light 1 & 2, Outreach Activities, Collaborations, Tools for Education, and Formal Programs 1 & 2. These sessions were held over two days during the 2016 Optics and Photonics meeting.

The first two sessions celebrated the 2015 International Year of Light with presentations on the many new programs to educate and illuminate the public about light based technologies. The state of Michigan saw several new optics outreach activities through a collaboration of several partners. The University of Southampton, with a long history in outreach, expanded its efforts into a formal garden and abroad. Spain and Puerto Rico shared how outreach in the community can lead students into the sciences and their respective educational programs. Hochschule Offenburg shared its many efforts in engaging the public. The international participation in this year's conference gave us a glimpse into how the world is working to promote optics and interest in STEM fields.

While much of the work in outreach was related or inspired by IYL2015, authors presented updates to ongoing efforts to draw interest in optics. AFRL reported on a formal internship program and Judy Donnelly described how Dumpster Optics can enable educators to do good optics on a budget. Another theme of the conference was on efforts to form local and international collaborations allowing individual participants to grow efforts more quickly by sharing the work of implementing and evaluating activities. These collaborations aid in reducing the number of times we reinvent and recreate activities.

Formal education was covered in the final three sessions ranging from how to help manage the cost of text books while keeping them current to educating officers in the German military. ITMO Photonics, in Russia, enabled students to develop projects for hardware and programs improving the facilities for the next class of students. Zhejiang Univ, in China, shared a novel teaching model combining online classes, offline discussions and resource sharing. The University of Arizona provided an example of how to allow laboratory experience for remote students. Learning how formal education is being developed and improved has been an integral

component in past years and the audience was disappointed with the advances reported this year.

My thanks go to those who helped make this conference a success, especially the authors, audience, SPIE staff, and program committee. The authors share the credit for making this conference an unqualified success. The audience built upon this success by being active and asking engaging questions. The SPIE staff ensured that everything ran smoothly before, during, and after the meeting. The program committee provided excellent assistance to ensure the quality of the content while also presiding over a number of the sessions. It was composed of Anna Consortini, Barbara A. Darnell, Judith Donnelly, Khaled J Habib, Nancy J. Magnani, Brian Monacelli, Joseph J. Niemela, Anne-Sophie Poulin-Girard, Kathleen B. Robinson, Donn M. Silberman, Cristina Solano, Perla M Viera-González, Richard N. Youngworth and Maria Josefa Yzuel.

The conference will return in two years. If you would like to assist with the 2018 or later conference, please contact me. We look forward to seeing you in 2016!

G. Groot Gregory