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Optical Systems Design 2015: Computational Optics

**Daniel G. Smith
Frank Wyrowski
Andreas Erdmann**
Editors

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Andreas Erdmann, Fraunhofer-Institut für Integrierte Systeme und Bauelementetechnologie IISB (Germany)

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Introduction

In 2015, the name of our conference changed from Physical Optics to Computational Optics. This change was intended to help align the expectations of the authors and audiences with the interests of the organizers. We feel that the new name evokes something closer to the kinds of topics we want to learn about and share: the simulation of optical phenomena and systems using either novel techniques or by applying conventional techniques to develop new paradigm situations. Discussions with participants during and after the conference tended to support our decision to change the name.

This year's conference was filled with excellent speakers and an equally attentive audience that provided many questions and lively discussions. Our keynote talk by Donis Flagello was an historical overview of computation in lithography – a field that now depends heavily on computational optics for every cycle of development.

This was then followed by two and a half days of computational optics presentations, as well as had three posters presented on Tuesday. The eight regular sessions included: Imaging Applications (sessions 1 and 5), Optical Field Propagation Techniques (session 2), Applications in Medicine and Energy Harvesting (session 3), Non-imaging Applications (session 4), Electromagnetic Field Methods (session 6), Inverse Imaging (session 7), and Computational Optics (Session 8).

Daniel G. Smith
Frank Wyrowski
Andreas Erdmann