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Introduction

As commerce, research, and manufacturing continue to become globe-spanning enterprises for even small companies or projects, the need to verify basic performance and ongoing quality becomes ever more important. Lean manufacturing practices and a global supply chain mean that parts which are out of specification or design flaws which come to light far in the development process can create severe disruption to the programs which rely on such components.

Optical inspection and test techniques such as holography, speckle techniques, fringe projection, and traditional two beam interferometry provide non-contact, rapid, and highly accurate metrology for a variety of applications. Such techniques are being employed in the fields of renewable energy, precision manufacturing, micro-electronics and semiconductor, civil engineering, aeronautics, and many more. As sources, detectors, optical designs, and analysis techniques become more capable, the applications of interferometric techniques continue to broaden.

For this conference, papers have been arranged in the following four subject areas: Measurement of Dynamic Processes, Precision Measurements for Industry, High Accuracy Optical Element Measurements, Measurement Through Transmissive Media, and Micro- and Nano-metrology. The submitted papers cover a broad range of applications of interest both to academia and industry, with many novel applications of interferometry and great discussion on groundbreaking advancements in the field.

The success of this conference relies on many people. I would like to take the opportunity to thank the conference committee and session chairs for their great support of the conference in terms of solicitation, review, and management of the talks. Also, the staff of SPIE has been superb in their assistance, and the conference could not succeed without their continued efforts. Last, thanks to all the speakers for their willingness to share their ideas with the broader metrology community.

Erik Novak
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Christophe Gorecki