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Modeling Aspects in Optical Metrology II

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Richard M. Silver
Editors

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Introduction

This year, the conference on **Modeling Aspects in Optical Metrology** is organized for the second time as an integral part of the SPIE *Europe* Optical Metrology Symposium. Initially suggested by Prof. Wolfgang Osten, the idea behind this conference was to establish a forum to present and discuss in particular basic methods, techniques, and algorithms which are necessary for a proper modeling and simulation of applied optical metrology techniques.

The use of optical metrology techniques in production control is increasing and thus it is of ever greater importance to fully understand the optical measurement process. This requires the ability of quantitatively predicting the dependence of the output of an optical sensor or an optical measurement system on variations of the measurement object, the sensor itself, and the measurement environment. Only if these influences on the measurement result are properly taken into account in a suitable model of the measurement process, the measurement result and its associated measurement uncertainty can be used for example for reliable control of production processes. Moreover, the ability to understand and model a measurement process is also a prerequisite for comparison of measurement results with those of other independent measurement methods.

The two-day conference covers the following technical sessions: optical systems, wave propagation and polarization, interferometry and phase, Maxwell solvers, surface metrology, scatterometry, and holography and optical coherence tomography (OCT). In addition to the oral presentation sessions on Monday 15 June and Tuesday 16 June, there will also be a poster session on Monday afternoon.

I would like to thank all contributors as well as co-chairs and the members of the program committee for their support of this conference, and I am looking forward to seeing you in Munich!

Harald Bosse