



For immediate release

## Andreas Erdmann Elected SPIE Fellow

BELLINGHAM, WA, USA — 24 February 2016 -- SPIE will promote 32 new Fellows of the Society this year, to recognize the significant scientific and technical contributions of each in the multidisciplinary fields of optics, photonics, and imaging. SPIE Fellows are honored for their technical achievements and for their service to the general optics community and to SPIE in particular. More than 1,200 SPIE members have become Fellows since the Society's inception in 1955.

The annual recognition of Fellows provides an opportunity for SPIE to acknowledge Members for their outstanding technical contributions and service to SPIE.



**Andreas Erdmann**, Fraunhofer Institute for Integrated Systems and Device Technology, Germany, for achievement in modeling of optical and extreme ultraviolet lithography

A much sought-after technical expert, Erdmann has spent 27 years in research and development in applied optics, including holography, nonlinear optics, guided wave optics and modeling of optical systems, including 20 years in lithography modeling. He has become a major contributor to the field of lithography simulation, in which he has made significant contributions to simulation software. Notable are his development and application of rigorous electromagnetic methods for accurate modeling of light-scattering effects in advanced lithography, investigations of mask topography effects including mask-induced focus-shifts and other aberration-like

effects, characterization of defects on optical and extreme ultraviolet masks, and exploration of wafer topography effects.

Among his major contributions to the lithographic community is his dedication to students at the Fraunhofer Institute and at the Friedrich-Alexander University Erlangen-Nürnberg. Many of his students now work at the major semiconductor companies. He is a prolific and respected technical researcher who's given 22 invited and keynote talks and over 188 presentations at technical conferences. He has published more than 219 publications in scientific journals, including SPIE journals and proceedings. For the past 13 years, he has organized and chaired the influential Fraunhofer International Lithography Simulation Workshop.

Erdmann is a leader within SPIE and provides great service to the community through his work in organizing and participating in conferences as an instructor, editor, and reviewer. He is a regular contributor to SPIE conferences, winning both best paper and best poster awards. He has participated in the leadership of the SPIE Advanced Lithography Symposium for many years, serving on the program committee for the past five years and as conference co-chair of Optical Microlithography for the past two years.

**SPIE** is the international society for optics and photonics, a not-for-profit organization founded in 1955 to advance light-based technologies. The Society serves more than 235,000 constituents from approximately 155 countries, offering conferences, continuing education, books, journals, and a digital library in support of interdisciplinary information exchange, professional growth, and patent precedent.

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