

### Field Guide to Displacement Measuring Interferometry (FG30) (Spie Field Guides)

By Jonathan D. Ellis



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This [i]Field Guide [/i]provides a practical treatment of the fundamental theory of displacement measuring interferometry, with examples of interferometry systems and uses. It outlines alignment techniques for optical components, signal processing systems for phase measurements, and laser stabilization for homodyne and heterodyne sources. The concept of displacement measurement uncertainty is discussed with a practical example of calculating uncertainty budgets. For practicing engineers, this [i]Field Guide [/i]will serve as a refresher manual for error sources and uncertainty budgets. For researchers, it will bring new insight to the way in which this technology can be useful in their field. For new engineers, researchers, and students, it will also serve as an introduction into basic alignment techniques for breadboard-based optical systems.



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#### **Editorial Review**

About the Author

Jonathan D. Ellis is currently an Assistant Professor at the University of Rochester with a joint appointment in the Department of Mechanical Engineering and the Institute of Optics. He obtained his doctorate from the DelftUniversity of Technology in the Netherlands, and M.S. and B.S. degrees from the University of North Carolina at Charlotte, all in mechanical engineering. He actively participates in SPIE, the Optical Society of America (OSA), and the American Society for Precision Engineering (ASPE). He currently serves as Director-at-Large and Treasurer for ASPE.

Professor Ellis research interests are in precision engineering, interferometry, optical metrology, instrumentation for primary standards level metrology, freeform optics fabrication and metrology, and precision scanning systems.

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This Field Guide to Displacement Measuring Interferometry (FG30) (Spie Field Guides) book is just not ordinary book, you have after that it the world is in your hands. The benefit you receive by reading this book is actually information inside this reserve incredible fresh, you will get facts which is getting deeper you actually read a lot of information you will get. This specific Field Guide to Displacement Measuring Interferometry (FG30) (Spie Field Guides) without we comprehend teach the one who looking at it become critical in imagining and analyzing. Don't always be worry Field Guide to Displacement Measuring Interferometry (FG30) (Spie Field Guides) can bring any time you are and not make your bag space or bookshelves' grow to be full because you can have it within your lovely laptop even cell phone. This Field Guide to Displacement Measuring Interferometry (FG30) (Spie Field Guides) having very good arrangement in word as well as layout, so you will not feel uninterested in reading.

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