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Advancement of Optical Methods in Experimental Mechanics, Volume 3

Proceedings of the 2014 Annual Conference on Experimental and Applied Mechanics

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Description:

Advancement of Optical Methods in Experimental Mechanics, Volume 3: Proceedings of the 2014 Annual Conference on Experimental and Applied Mechanics, the third volume of eight from the Conference, brings together contributions to this important area of research and engineering. The collection presents early findings and case studies on a wide range of optical methods ranging from traditional photoelasticity and interferometry to more recent DIC and DVC techniques, and includes papers in the following general technical research areas:

- Advanced optical methods for frontier applications
- Advanced optical interferometry
- Optical measurement systems using polarized light
- Optical methods for advanced manufacturing
- Digital image correlation
- Optical methods at the micro/nano-scale
- Three-dimensional imaging and volumetric correlation
- Imaging methods for thermomechanics applications
- Opto-acoustical methods in experimental mechanics
- Optical measurements in challenging environments
- Optical methods for inverse problems
- Advances in optical methods

Keywords: Devices & fabrication Measurement challenges Nanoindentation Residual stress Single molecule/single atom mechanical testing Size effects in metals Tribology