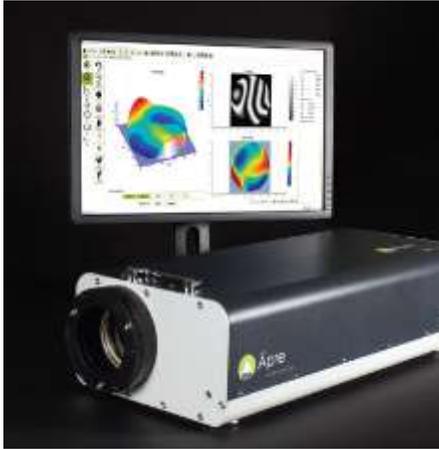


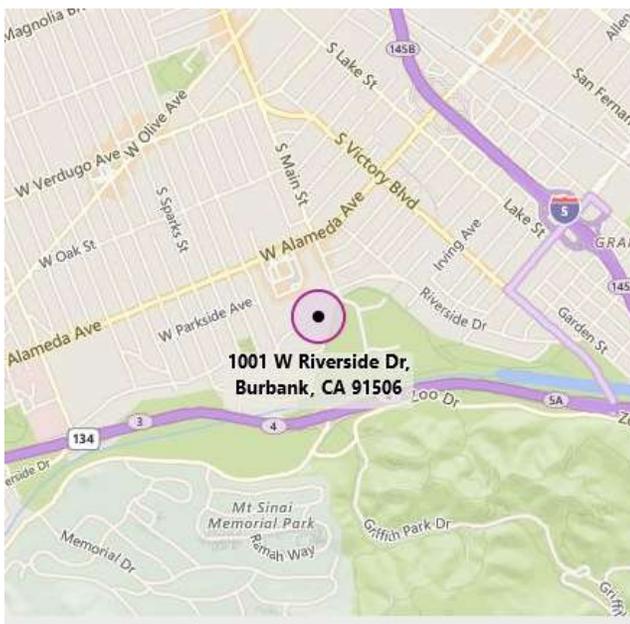
An Introduction to Spectrally Controlled Interferometry for the Measurement of Flat and Spherical Optics

Donald (Don) A. Pearson II, Äpre Instruments, Tucson, Arizona



Conventional interferometry is widely used to measure spherical and flat surfaces with nanometer level precision but it is often plagued by back or multiple surface reflections. At this meeting I will describe a new method of isolating the measurement surface by controlling the spectral properties of the source (Spectrally Controlled Interferometry - SCI). Using spectral modulation of the interferometer's source enables formation of localized fringes where the optical path difference is non-zero. As a consequence, it becomes possible to form white-light like fringes in common path interferometers, such as the Fizeau or Twyman-Green. ÄPRE's SCI technology does not require mechanical phase shifting, resulting in simpler instruments and offers the ability to upgrade existing interferometers. Furthermore, SCI allows absolute measurement of distance, including radius of curvature of lenses, in a single setup with the possibility of improving the throughput and removing some of the pitfalls of inaccurate measurements.

About our speaker: With nearly 35 years' experience in the optics and photonics industries, Don has a wide breadth of knowledge in optical and electro-optical systems, fiber optic communications, optical manufacturing, optical metrology, lasers and laser platforms, and optoelectronics. Don has a BS Degree in Electro-Optic Engineering and a MBA. Don's MBA concentration was in International Business and Marketing. Additionally, he successfully completed an Executive Development Program in Strategic Planning through Michigan State's Eli Broad School of Executive Management. Don is a long-term, active member in OSA, SPIE, ASPE, and APOMA. Don has one US patent and has authored and delivered multiple presentations on the topics of Aspheric Metrology and Advanced Interferometry at numerous conferences and technical meetings.



Reception: 6:00; Dinner / Talk: 7:00

Dinner – Cost: \$30

\$40 after March 11th

OSSC Student Members: \$10,

\$20 after March 11th

Sodexo @ Pickwick Gardens

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Burbank, CA 91506

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On-line Registration: www.osscc.org or

Contact: Don Silbermann, **OSSC** Arrangements Chair,

Events@osscc.org,

(949) 636-6170

RSVP by March 11th, 2018

Please post this notice and invite your friends & colleagues to attend!