

**Session Title:** [Th-IX] Interferometric and Polarimetric Sensors and Gyroscopes  
**Date and Time:** April 27, 2017 (Thursday), 13:30-15:10  
**Session Chairs:** Kara Peters (North Carolina State University, USA)  
Clay Kirkendall (Naval Research Laboratory, USA)

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**[Th-IX1] 13:30-13:55** (Paper No. 10323-576)

**[Invited] Optical Fiber Sensor Based Life Cycling Monitoring and Quality Assessment of Carbon Fiber Reinforced Polymer Matrix Composite Structures**

N. Takeda and S. Minakuchi  
*The University of Tokyo, Japan*

**[Th-IX2] 13:55-14:07** (Paper No. 10323-134)

**Characterisation of 3D Printers Using Fibre Bragg Gratings**

John Canning<sup>1,2</sup>, Kevin Cook<sup>1</sup>, Md Arafat Hossain<sup>1</sup>, Chunyang Han<sup>1</sup>, Loic Chartier<sup>1</sup>, and Tristan Athanaze<sup>1</sup>

<sup>1</sup>The University of Sydney, Australia, <sup>2</sup>Australian Sensing and Identification (AusSI) Systems Pty Ltd, Australia

**[Th-IX3] 14:07-14:19** (Paper No. 10323-183)

**Multiplexing Curvature Sensors Using Fibre Segment Interferometry for Lateral Vibration Measurements**

Thomas Kissinger, Edmon Chehura, Stephen W. James, and Ralph P. Tatam  
*Cranfield University, UK*

**[Th-IX4] 14:19-14:44** (Paper No. 10323-564)

**[Invited] Distributed Polarization Sensing**

Andrea Galtarossa and Luca Palmieri  
*University of Padova, Italy*

**[Th-IX5] 14:44-14:56** (Paper No. 10323-66)

**High Finesse Silica Waveguide Ring Resonators for Resonant Micro-Optic Gyroscopes**

Jianjie Zhang, Hanzhao Li, Huilian Ma, and Zhonghe Jin  
*Zhejiang University, China*

**[Th-IX6] 14:56-15:08** (Paper No. 10323-99)

**Integrated Sagnac Optical Gyroscope Sensor Using Ultra-Low Loss High Aspect Ratio Silicon Nitride Waveguide Coil**

Sarat Gundavarapu, Michael Belt, Taran Huffman, Minh A. Tran, Tin Komljenovic, John E. Bowers, and Daniel J. Blumenthal  
*University of California, USA*