

**Session Title:** [Tu-III] Physical and Magnetic Sensors  
**Date and Time:** April 25, 2017 (Tuesday), 15:30-17:10  
**Session Chairs:** Jose Luis Fabris (Federal University Of Technology, Brazil)  
Miguel Gonzalez-Herraez (University of Alcalá, Spain)

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**[Tu-III1] 15:30-15:55** (Paper No. 10323-566)

**[Invited] Low-Noise Mode-Locked Lasers for Fiber Strain Sensing**

Jungwon Kim<sup>1</sup>, Shuangyou Zhang<sup>1</sup>, Xing Lu<sup>2</sup>, and Kebin Shi<sup>2</sup>

<sup>1</sup>Korea Advanced Institute of Science and Technology, Korea, <sup>2</sup>Peking University, China

**[Tu-III2] 15:55-16:20** (Paper No. 10323-573)

**[Invited] Fiber Bragg Grating Sensor Interrogators on Chip: Challenges and Opportunities**

Yisbel Marin, Tiziano Nannipieri, Claudio J. Oton, and Fabrizio Di Pasquale

*TeCIP Institute, Italy*

**[Tu-III3] 16:20-16:32** (Paper No. 10323-75)

**Mechanisms of Signal Coupling to Optical Fiber for FBG Sensor Detection of Lamb Waves**

Junghyun Wee, Drew Hackney, Philip Bradford, and Kara Peters

*North Carolina State University, USA*

**[Tu-III4] 16:32-16:44** (Paper No. 10323-109)

**Photodetector with Photothermal Cascaded Fabry-Perot Etalons**

George Y. Chen, Xuan Wu, Xiaokong Liu, David G. Lancaster, Tanya M. Monro, and

Haolan Xu

*University of South Australia, Australia*

**[Tu-III5] 16:44-16:56** (Paper No. 10323-120)

**Characterization of Bovine Cartilage by Fiber Bragg Grating-Based Stress Relaxation Measurements**

V. Baier<sup>1</sup>, G. Marchi<sup>1</sup>, P. Foehr<sup>2</sup>, R. Burgkart<sup>2</sup>, and J. Roths<sup>1</sup>

<sup>1</sup>Munich University of Applied Sciences, Germany, <sup>2</sup>Technical University of Munich, Germany

**[Tu-III6] 16:56-17:08** (Paper No. 10323-141)

**Simultaneous Measurement of Both Magnetic Field Strength and Temperature with a Microfiber Coupler based Fiber Laser Sensor**

Fangfang Wei<sup>1</sup>, Arun Kumar Mallik<sup>1</sup>, Dejun Liu<sup>1</sup>, Wei Han<sup>1</sup>, Xiaokang Lian<sup>1</sup>, Gerald Farrell<sup>1</sup>, Qiang Wu<sup>2</sup>, Gang-Ding Peng<sup>3</sup>, and Yuliya Semenova<sup>1</sup>

<sup>1</sup>Dublin Institute of Technology, Ireland, <sup>2</sup>Northumbria University, UK, <sup>3</sup>University of New South Wales, Australia