

The Institute of Electromagnetic Theory at TUHH is pleased to have as international academic guest on October 17, 2017:

## **Dr. Kate A. Remley**

**Leader, Metrology for Wireless Systems Group  
NIST Communications Technology Laboratory  
Boulder, Colorado, USA**



Students, faculty, and professionals from academia and industry are invited to attend her Distinguished Lecture hosted by the IEEE German EMC Chapter on:

### **Bringing Precision to Measurements for Millimeter-wave 5G Wireless: Conducted and Free-Field Modulated-Signal Measurements**

**Room 0053/4 (WiKom), Building I (DE22)  
Hamburg University of Technology (TUHH)  
Schwarzenbergstraße 95, 21073 Hamburg**

**17:00 – 18:00, October 17, 2017**

Kate Remley is an IEEE Fellow and well-known metrology expert for wireless systems at the National Institute of Standards and Technology (NIST). She is currently serving as a Distinguished Lecturer for the IEEE EMC Society.

Information on how to get to TUHH:

<http://www.tuhh.de/tuhh/uni/lageplan.html>

Abstract of the Talk:

At millimeter-wave frequencies and for wide modulation bandwidths, the hardware performance of both modulated-signal sources and vector receivers becomes increasingly nonideal. These nonidealities make test and validation of devices, circuits and systems not only more important, but also more difficult. This is especially true because future systems will likely push the limits of modulation complexity and bandwidth to increase data throughput. We will discuss calibration and measurement techniques to correct millimeter-wave modulated-signal measurements illustrating that traditional assumptions at microwave frequencies may not be adequate at millimeter-wave frequencies.

Biography of the Speaker:

Kate A. Remley is the leader of the Metrology for Wireless Systems Group at NIST, where her research activities include development of calibrated measurements for microwave and millimeter-wave wireless systems and developing standardized test methods for RF equipment used by the wireless community.

Dr. Remley was the recipient of the Department of Commerce Bronze and Silver Medals, an ARFTG Best Paper Award, and is a member of the Oregon State University Academy of Distinguished Engineers. She was the Chair of the MTT-11 Technical Committee on Microwave Measurements from 2008 - 2010 and the Editor-in-Chief of IEEE Microwave Magazine from 2009 - 2011, and is currently the Chair of the MTT Fellow Nominating Committee. She is a Distinguished Lecturer for the IEEE EMC Society (2016-2018).

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