

## **PLENARY TALK III (11:00 - 12:00)**

Session Chair: Cristiano M. B. Cordeiro - UNICAMP, Brazil

### **Distributed sensing with random fiber laser**

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Random lasers are usually thought of as being light sources of poor coherence and broad spectrum. As such, interference is expected to take place only over short coherence lengths. In this work, a random fiber laser is used to generate mode-locked pulses that are transform limited, and therefore coherent, over an adjustable length that can reach several meters. The laser is also a phase-OTDR with an open-ended fiber spool that can be probed as a distributed sensor. Temperature resolution in the millikelvin range with a few centimeters spatial resolution can be achieved

## **SPONSOR (13:30 - 13:50)**

Session Chair: Maria Thereza R. Giraldo - IME, Brazil

### **Practical approach on optical sensors for security applications**

***Victor Diago***

Alfa Sense, Brazil

An overview of different optical sensing technologies targeting security applications, the motivations, challenges, threats, and outcomes of deploying advanced technology in harsh environments.