

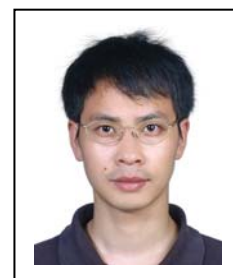
Shilong Pan

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Biography

Shilong Pan received the B.S. and Ph.D. degrees in electronics engineering from Tsinghua University, Beijing, China, in 2004 and 2008, respectively. From 2008 to 2010, he was a “Vision 2010” Postdoctoral Research Fellow in the Microwave Photonics Research Laboratory, University of Ottawa, Canada. He joined the College of Electronic and Information Engineering, Nanjing University of Aeronautics and Astronautics, China, in 2010, where he is currently a full professor and executive director of the Key Laboratory of Radar Imaging and Microwave Photonics (Nanjing Univ. Aeronaut. Astronaut.), Ministry of Education. His research has focused on microwave photonics, which includes optical generation and processing of microwave signals, photonic microwave measurement, and integrated microwave photonics. Prof. Pan has authored or co-authored over 280 research papers, including more than 140 papers in peer-reviewed journals and 140 papers in conference proceedings. Prof. Pan is a senior member of the IEEE Microwave Theory and Techniques Society, the IEEE Photonics Society and a member of the Optical Society of America. He was selected to receive an OSA outstanding reviewer award in 2015. Prof. Pan serves as a Chair of numerous international conferences and workshops, including the TPC Chair of the International Conference on Optical Communications and Networks in 2015, TPC Co-chair of IEEE International Topical Meeting on Microwave Photonics in 2017, TPC Chair of the high-speed and broadband wireless technologies subcommittee of the IEEE Radio Wireless Symposium in 2013, 2014 and 2016, TPC Chair of the Optical fiber sensors and microwave photonics subcommittee of the OptoElectronics and Communication Conference in 2015, and Chair of the microwave photonics for broadband measurement workshop of International Microwave Symposium in 2015.

Presentation Title: Length measurement of long optical fiber with sub-millimeter resolution

Abstract: Knowing the exact length of long optical fiber is of great importance to interferometry-based optical sensors, fiber-connected antenna arrays and other microwave photonic applications. This paper reviews recent efforts on long optical fiber length measurement with sub-millimeter resolution, including optical time domain reflectometers, optical frequency domain reflectometers, and optical backscatter reflectometers based on microwave frequency sweeping. Techniques to improve the measurement resolution and to reduce the measurement error are discussed.