

ARFTG Microwave Measurement Symposium in San Antonio

Andrej Rumiantsev and Joe Gering

Building upon a successful 2019 meeting, the Automatic RF Techniques Group (ARFTG) will again co-locate with Radio & Wireless Week (RWW) being held January 2020 in San Antonio, Texas. ARFTG is excited to bring its program of innovative measurement topics to the event and plans to participate in the joint exhibition and plenary session.

ARFTG is devoted to both cutting-edge and practical measurements in RF, communications, microwaves, and related fields. So, if you have any interest in measurements, particularly high-frequency measurements



(anything from 1 kHz to over 1 THz), be sure to make the ARFTG conference part of your schedule for the week. You will find that the atmosphere at ARFTG is informal and friendly. Chances are that you will leave with much more than you came in with—perhaps some new ideas to help with your current projects and new technical contacts to use in the future.

Oral technical sessions at ARFTG conferences (Figure 1) are conducted in a single-track style, with papers that cover topical subjects both theoretical and practical, address the end user and manufacturer, and cover modeling and measurement. As an alternative to oral presentations, authors may present their work as poster papers in the open forum that jointly runs with the vendor exhibition (Figure 2).

The theme for this year's conference is "RF to Millimeter-Wave Measurement Techniques for 5G and Beyond." In particular, papers were solicited in areas including, but not limited to

- 5G, the Internet of Things, and over-the-air measurement and calibration
- RF to digital, mixed signal, and digital RF
- nonlinear, large-signal waveforms measurement and modeling

Andrej Rumiantsev (a.rumiantsev@ieee.org) is with MPI Corporation, Chu-Pei City, Taiwan. Joe Gering (joe.gering@qorvo.com) is with Qorvo, Greensboro, North Carolina, United States.

Digital Object Identifier 10.1109/MMM.2019.2941671
Date of current version: 12 November 2019

- RF, microwave, and millimeter-wave measurements for circuits, devices, and systems
- advances in on-wafer or in-fixture measurements, calibration, and de-embedding
- metrology, calibration, and material measurements.

Other topics in the areas of microwave metrology, measurement, and calibration techniques are also covered.

The most stimulating part of the ARFTG experience is the opportunity to directly interact on a one-to-one basis with colleagues, experts, and vendors in the RF and microwave test and measurement community. The somewhat open conference scheduling and the presence of many acknowledged experts in the field of high-frequency measurements make it easy for attendees to have their questions answered and learn about new subject areas. The following link provides a glimpse of the types of presentations offered at ARFTG conferences: <https://www.youtube.com/channel/UCGrTxVB-T4oxubdOBeVnxsg>.

The Overall Program

A one-and-a-half day National Institute of Standards and Technology short course on basic and advanced measurement concepts will be presented by experts in the field on Sunday and Monday mornings. The main conference runs from noon Monday through Tuesday, with interactive forum papers presented during one of the breaks (co-located with the exhibition). A workshop, in addition to the RWW workshops, will be available on an advanced measurement topic on Wednesday. New this year will be a joint session with the Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems (aka SiRF), which covers items of interest to both the RF integrated circuit design and microwave measurements communities. The plenary session, also held jointly with RWW, will explore interesting high-level topics. Finally, an awards luncheon will be held on Tuesday, during which the best papers and exhibitors



Figure 1. The single-track format of the main ARFTG conference presents novel and innovative measurement techniques and practices.



Figure 2. In conjunction with RWW, the interactive forum is co-located with the exhibition to help promote discussion.

from the conference will be honored, along with special awards for achievement in the measurement field.

In addition, during the week there are two ARFTG-sponsored users' forums, one on nonlinear vector network analysis and one on on-wafer measurements. These free events are structured less like conference sessions and designed to be more like open discussions on selected subtopics.

Need to Know More?

ARFTG's website (www.arftg.org) has all you need to know about upcoming events, including our conference during RWW 2020. The key contacts within the ARFTG organizing group are as follows:

- For sponsorship information, contact sponsorship@arftg.org.
- For exhibits information, contact exhibits@arftg.org.
- For information about the nonlinear vector network analysis users' forum, contact nvna_usersforum@arftg.org.
- For general conference matters, contact conference chairs Andrej Rumiantsev or Joe Gering (chairs@arftg.org).
- Follow ARFTG on Twitter (<https://twitter.com/arftgconference>), and join the ARFTG LinkedIn Group (<https://www.linkedin.com/groups/150585/>).