

Workshops at IMS2022

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At the IEEE Microwave Theory and Techniques Society (MTT-S) 2022 International Microwave Symposium (IMS2022) in Denver, there will be two days of workshops. We eliminated workshops on Fridays since they usually have low attendance, the main goal being to have a smaller number of workshops on more diverse topics. We also wanted to avoid overlap with the Automatic RF Techniques Group (ARFTG) as well as allow for some time for hiking in our local mountains. (Ask us for recommendations.)

On Sunday, most IMS workshops overlap with RF Integrated Circuits Symposium (RFIC) ones, with the breakdown given in Table 1. There will be 11 full-day workshops and four half-day workshops. On Monday, there are a total of 16 workshops with



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two joint workshops with ARFTG. Eleven of the workshops on Monday are full day. Full workshop details can be found at <https://ims-ieee.org/technical-program/workshops>.

The process for down-selecting the workshops started with optional short preproposals, which allowed us to recommend that some workshops be merged, and this was successful in several instances, resulting in higher-quality final proposals and, we believe, better workshops as well as fewer repeated topics. The final proposals were then down-selected based

on the quality of the abstract and obtained commitments by speakers. Several proposals were then modified

TABLE 1. Microwave Week IMS and RFIC workshops.

Sunday	IMS	2
	IMS + RFIC	7
	RFIC	6
Monday	IMS	14
	IMS + ARFTG	2

Sunday has seven IMS and RFIC joint workshops. Monday has two IMS and ARFTG joint workshops.

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by the organizers to reduce further overlap and better use allocated time.

The topics of the workshops range from traditional microwave topics, such as power amplifiers, to new areas for the MTT-S, such as quantum sensing.

With the other topics ranging from 6G to commercial applications for RF in medical fields, it will be difficult to find overlapping topic areas! We are excited by the quality of the proposed workshops and hope you

will find the time to attend a few, benefit from the excellent competent speakers, and challenge them with some excellent questions. See you in Denver in June!



IMS2022 Systems Forum Focus and Special Sessions *(continued from page 111)*

a huge push for compact, reliable, and low-power RF components in bands from dc to terahertz. Similarly, there has been a surge of research around critical radar and sensing technologies enabling high-resolution applications in congested environments. The sessions on Wednesday will cover the latest developments in radar techniques and RF technologies that are driving terrestrial and aerospace communications, radar, and sensing systems.

The day is kicked off with “Radar From Space to Ground (and Below)—The Synergy Between Commercial, Government, and Metrology Applications,” organized by Peter Knott (Fraunhofer FHR) and Peter Vouras (National Security Agency), which will provide an overview of the worldwide state of the art of radar technology and present a wide range of applications in the military, civil, and dual-use sectors while also highlighting common features in technologies and methods.

“Cognitive Radar,” organized by Joseph Guerci (Information Systems Laboratories), will provide an

up-to-the-minute overview of the recent research activities in the cognitive radar field, including advanced machine learning, knowledge-aided processing, high-performance embedded computing, including neuromorphic computing, and other artificial intelligence methods.

Electronically steerable arrays are being used in an ever-increasing number of applications as commercial mm-wave deployment rolls out and phased-array technology becomes commonplace.

“New Advances in RF Circuits and Systems,” organized by John Papapolymou (Michigan State University) and Linda Katehi (Texas A&M University), will focus on new technologies and advances in RF circuits and systems that are expected to play a major role in future communication, radar, and sensing applications, highlighting novel circuits, such as memristor-based RF electronics, GaN-based RF electronics, silicon-photonic electronics, 3D-printed mm-wave packages and interconnects, and active incoherent mm-wave imaging systems.

Thursday, 23 June: Phased Arrays and OTA Applications Day

Electronically steerable arrays are being used in an ever-increasing num-

ber of applications as commercial mm-wave deployment rolls out and phased-array technology becomes commonplace. Furthermore, the advances in antenna-in-package/module/chip technology are driving our new connectorless paradigm, which has led to unique measurement challenges. The focus sessions on Thursday address the latest phased array technologies and the techniques necessary to characterize those systems.

The day starts with a joint focus session with the Automatic Radio Frequency Techniques Group (ARFTG) conference, titled “Efficient Characterization and Test of Phased Array Antenna Systems: Is it Really a Nightmare?” organized by Marc Vanden Bossche and Jan Fromme (National Instruments), which introduces the newest developments related to fast and compact characterization to engineers and system-level designers of phased array antenna systems.

Our final session, “Reconfigurable RF Systems for 5G mm-Wave Communications,” organized by Holger Maune, Otto von Guericke University of Magdeburg (OVGU), will cover technologies in future communication systems that enable changing communication parameters even when the front end is not accessible (e.g., as in satellites).

