

**Radar in All Domains – from Highways to Space.**

CALL FOR PAPERS

Aim & Scope

International Radar 2025 will be held in Atlanta, Georgia, USA. Originally a railroad terminus, Atlanta is now a rapidly growing 21st century global hub of transportation, education, and technology. Atlanta is the ideal host to look at Radar in All Domains – from Highways to Space.

Atlanta is the heart of the American South and has great weather in early May with an average high temperature of 80°F (27°C). Home to the world's busiest airport, Atlanta is an easy destination to get to. Direct flights are available from Europe, South Africa, Japan, South Korea, and all major U.S. cities.

The venue for Radar 2025 is the Courtland Grand Hotel, located in the heart of Downtown Atlanta. This venue is within easy walking distance of local restaurants and attractions, including Centennial Olympic Park, Mercedes Benz Stadium (Atlanta United Soccer), the Georgia Aquarium, the World of Coca Cola, and many others. This location is also near Georgia Tech, Emory, and Georgia State Universities.

Technical Topics

- » Radar Signal Processing: STAP & adaptive processing, MIMO, sparsity-based techniques, SAR / ISAR processing, digital beamforming & array processing, super-resolution techniques, detection & false alarm improvements
- » Radar Tracking and Fusion: Multi-target tracking & fusion, classification & identification, AI/ML techniques
- » Radar Phenomenology: target & clutter modeling and estimation, atmospheric propagation & scattering phenomenology, multipath exploitation
- » Radar Systems & Applications: innovative designs / missions for airborne, spaceborne & shipborne radar, imaging radar, air traffic radar, over-the-horizon radar, automotive radar, multi-function radar / RF, weather radar, medical / biomedical sensing
- » Distributed Radar: signal processing, fusion, and design considerations for coherent and non-coherent distributed radar systems
- » Multi-function RF systems: software-defined radar, spectrum sharing with communication systems, and waveform agility
- » Antenna Technology: conformal / low-profile arrays, design for low sidelobe level, ultra wideband, metamaterials, multi-polarization, frequency-diverse arrays, dual / multi-band antennas & arrays, simultaneous multiple beams
- » Subsystems and Components: novel & advanced processing architectures, processing & RF architectures for software-defined radar, RF system-on-chip (RFSoc) & other transceiver technologies, advanced components, real-time processing (e.g. FPGA, GPU, hybrid), T/R modules, advanced receiver designs, and simultaneous transmit / receive (STAR) architectures
- » Emerging Radar Technologies: cooperative radar systems (scheduling, networking, fusion), cognitive radar, fully digital phased array radar, millimeter-wave / terahertz radar, application of AI/ML
- » Domain-specific Radar Systems and Operations: space, air, surface, sea-surface, automotive

We invite submissions for full papers on any topics of relevance to radar and recommend topics list for interest. We also invite proposals for tutorials and special sessions.

KEY DATES

7 Oct 2024

Special Session Proposals

17 Nov 2024

Tutorial Proposals

18 Dec 2024

Papers Submission Deadline

10 Feb 2025

Notice of Acceptance

07 Mar 2025

Final Paper Submission