IEEE AP-S INTERNATIONAL SYMPOSIUM · USNC-URSI RADIO SCIENCE MEETING · DETROIT 2026

CALL FOR PAPERS

IEEE AP-S/URSI 2026

IEEE INTERNATIONAL SYMPOSIUM ON ANTENNAS AND PROPAGATION AND USNC-URSI RADIO SCIENCE MEETING

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The 2026 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting – AP-S/URSI 2026 is to be held in Detroit, Michigan,12-17 July 2026. This event is the premier international forum for the exchange of ideas on state-of-the-art research in antennas and propagation and radio science. We are excited to offer an exciting lineup of **sessions, workshops, exhibitors, and keynote speakers** that will address the latest developments in the broader area of electromagnetics. Detroit is known for its rich cultural heritage, vibrant art scene, and home to a number of iconic attractions. It has a unique blend of historical charm and modern revitalization.
Technical papers are solicited on any subject pertaining to the scope of the conference including, but not limited to, the following topics:

AP-S-TOPICS

- Track 1: Antenna Modeling, Design, Fabrication
- Track 2: Antenna Arrays and Systems
- Track 3: Propagation and Scattering
- Track 4: Metamaterials
- Track 5: Electromagnetic Fundamentals
- Track 6: Computational Electromagnetics
- Track 7: Antenna Measurements
- Track 8: Wireless Communications
- Track 9: Security
- Track 10: Environment
- Track 11: Health and Medicine
- Track 12: Space

URSI TOPICS

- Commission A: Electromagnetic Metrology
- Commission B: Fields and Waves
- Commission C: Radio-Communication Systems and Signal Processing
- Commission D: Electronics and Photonics
- Commission E: Electromagnetic Environment and Interference
- Commission F: Wave Propagation and Remote Sensing
- Commission G: Ionospheric Radio and Propagation
- Commission H: Waves in Plasma
- Commission J: Radio Astronomy
- Commission K: Electromagnetics in Biology and Medicine

IMPORTANT DATES

October 17, 2025
PROPOSAL OF SPECIAL SESSIONS

January 16, 2026
PROPOSAL FOR SHORT COURSES/WORKSHOPS/TUTORIALS

January 23, 2026
PAPER SUBMISSION DEADLINE

PAPER SUBMISSION: Authors are invited to submit contributions for review and possible presentation on topics of interest to IEEE AP-S and URSI.
URSI SUBMISSIONS MAY BE IN EITHER: The URSI one-page, one-column format with a minimum length of 250 words, or the IEEE two-column format with a length of 2-pages.
AP-S SUBMISSIONS MUST BE IN: The IEEE two-column format and must be 3 to 4 pages in length.

Questions for the Technical Program Chairs can be submitted here:
tpc@2026.apsursi.org

Detroit, Michigan
12-17 July 2026

2026.APSURSI.ORG

IEEE AP-S Antennas and Propagation Society

U.R.S.I.

AP-S-TOPICS

Track 1: Antenna Modeling, Design, Fabrication

1.1: Resonant antennas (including Wire, Slot, DRAs, etc.)
1.2: Matching circuits, filtennas, and antenna modeling
1.3: Microstrip patch and other planar antennas
1.4: Travelling and guided wave antennas
1.5: Electrically small antennas
1.6: Broadband and multiband antennas
1.7: Reflector antennas, lens antennas, and primary feeds
1.8: Millimeter wave, terahertz, and optical antennas
1.9: 3D printed antennas and antenna manufacturing
1.10: Other related topics in antenna modeling, design, fabrication

Track 2: Antenna Arrays and Systems

2.1: Array antennas
2.2: Mutual coupling in antennas
2.3: Reflectarray & transmitarray antennas
2.4: Multibeam or scannable lens antennas
2.5: Reconfigurable and adaptive antennas and arrays
2.6: Related topics in arrays & systems

Track 3: Propagation and Scattering

3.1: Terrestrial, urban, indoor and body-area propagation
3.2: Tropospheric and ionospheric propagation
3.3: Channel and propagation measurement campaigns
3.4: Channel sounding, channel emulation and testing
3.5: Propagation and scattering in random or complex media
3.6: Scattering, RCS, diffraction and rain effects
3.7: Inverse scattering and imaging
3.8: Remote sensing
3.9: AI methods in propagation and imaging
3.10 Other related topics in propagation and scattering

Track 4: Metamaterials

4.1: Metamaterials and metasurfaces
4.2: Metasurfaces and metamaterials for antenna systems
4.3: Metastructures for scattering and absorption control
4.4: Reconfigurable, time-varying, and intelligent metastructures
4.5: Frequency selective surfaces
4.6: Electromagnetic bandgap materials and structures
4.7: Related topics in metamaterials

Track 5: Electromagnetic Fundamentals

5.1: Antenna and electromagnetic theory
5.2: High frequency and asymptotic methods
5.3: Near-field effects and beam propagation
5.4: Random and nonlinear electromagnetics
5.5: Nano-electromagnetics
5.6: Quantum electromagnetics and applications
5.7: Spatiotemporal and transformation electromagnetics
5.8: Wave-matter interactions and waves in complex media
5.9: Education in electromagnetics
5.10: History of electromagnetics

Track 6: Computational Electromagnetics

6.1: Integral equation methods
6.2: FDTD methods
6.3: FEM methods
6.4: Other transient and time-varying simulations
6.5: Statistical modeling and uncertainty quantification
6.6: Multiphysics simulation methods
6.7: Optimization methods in EM design
6.8: Parallel and special processor based numerical methods
6.9: AI in electromagnetic field applications
6.10: Other advances in computational electromagnetics

Track 7: Antenna Measurements

7.1: Antenna measurements
7.2: Material measurements
7.3: Measurements of phased array, reconfigurable, and ultrawideband antennas
7.4: RCS Measurements
7.5: AI/ML-based antenna measurements
7.6: Digital twin applications in antenna measurement

Track 8: Wireless Communications

8.1: RFID antennas and systems
8.2: Mobile and automotive antennas and electromagnetics
8.3: MIMO technologies and systems
8.4: Smart antennas and reconfigurable intelligent surfaces for wireless applications
8.5: Antenna-on-chip (AoC) and Antenna-in-Package (AiP)
8.6: Channel modeling for wireless systems
8.7: Next generation 6G and beyond
8.8: Software defined cognitive radio
8.9: Other topics in wireless communications

Track 9: Security

9.1: EM-based security enhancements
9.2: Defense applications
9.3: Antennas and EM for disaster management
9.4: RFID technologies for security
9.5: Security of air and space-based EM systems
9.6: Other applications of EM for security

Track 10: Environment

10.1: Wireless power transfer, energy harvesting and their environmental impacts
10.2: Monitoring of climate changes with electromagnetics, antennas, and propagation
10.3: Sustainable manufacturing of antennas
10.4: Societal impacts including EM pollution and ecosystem impacts
10.5: EM Sensors for sustainability and environment (RF/THz sensors, IoT Devices)
10.6: EMI/EMC issues of renewable energy infrastructure
10.7: Other environmental applications of EM

Track 11: Health and Medicine

11.1: Electromagnetic imaging for diagnostics
11.2: Non-invasive sensing and monitoring
11.3: Wearable and implantable antennas/devices
11.4: Bioelectronics
11.5: Electromagnetic solutions for therapy
11.6: Bioelectromagnetic interactions
11.7: Emerging technologies in health data communication and processing
11.8: Telemedicine and remote healthcare
11.9: Safety and compatibility in medical systems

Track 12: Space

12.1: Ground station antennas
12.2: Satellite antennas
12.3: Antennas on platforms and specialized environments
12.4: Radio astronomy
12.5: Planetary radar systems
12.6: Other topics in space applications

URSI-TOPICS

Commission A (Electromagnetic Metrology)

Antennas, planar structures and microstrip circuits
EM- field metrology
EMC, EM pollution, and Noise
Material Metrology
Microwave to submillimeter measurements and communications
Quantum metrology and fundamental concepts
Impulse radar and Time domain metrology

Commission B (Fields and Waves)

Antenna theory, design, and measurements
Numerical methods
RF – THz Devices, systems, applications
Propagation, scattering, sensing
Theory, materials, education

Commission C (Radio-Communication Systems and Signal Processing)

- Distributed and multifunctional RF systems
- Physics-based RF signal processing and inverse methods
- Radar target detection/localization/tracking/imaging
- RF spectrum convergence/harmony/maneuver
- RF resource management
- Software-defined and cognitive radio/radar/sensing
- Artificial intelligence/machine learning for EM systems
- Quantum RF system theory/technologies/applications
- Digital-divide mitigation with radiocommunication systems

Commission D (Electronics and Photonics)

- Electronic devices, circuits and applications
- Photonic devices, circuits and applications
- Physics, materials, CAD, technology and reliability of devices, in radio science and telecommunications
- Reconfigurable RF
- THz electronics
- Wide bandgap materials and devices

Commission E (Electromagnetic Environment and Interference)

- EM modeling of systems and environments
- EM compatibility
- High-power EM effects of transients on electronic systems
- Radio-communication systems in presence of noise
- RF applications in presence of noise
- RF spectrum, medium utilization, and convergence
- Effects of natural and intentional emissions on system performance
- Signal and power integrity

Commission F (Wave Propagation and Remote Sensing)

- Microwave remote sensing of the Earth
- Point-to-point propagation effects
- Propagation and remote sensing in complex and random media

Commission G (Ionospheric Radio and Propagation)

- Ionospheric imaging, morphology, modeling and data assimilation
- Meteoroids and orbital debris
- Radar and radio techniques for ionospheric diagnostics
- Space weather - radio effects
- Transionospheric radio propagation and systems effects

Commission H (Waves in Plasma)

- Chaos and turbulence in plasma
- Plasma instabilities
- Spacecraft-plasma interactions
- Solar/planetary-plasma interactions
- Space as a research laboratory
- Space environment modeling and forecasting
- Wave-wave and wave-particle interactions
- Waves in space and laboratory plasmas

Commission J (Radio Astronomy)

- Observation and interpretation of cosmic radio emissions
- Protection of radio astronomy observations from harmful interference
- Radio reflections from solar system bodies
- Techniques for conducting radio astronomy observations and data analysis

Commission K (Electromagnetics in Biology and Medicine)

- Antennas for health monitoring and biomedical imaging
- Biological effects of EM and radio frequency systems
- EM imaging and sensing applications
- Human body interactions with antennas and other EM devices
- RF dosimetry and exposure
- Therapeutic, rehabilitative and other applications