



Motors City

DRIVE INNOVATION. FUEL CONNECTIONS.

CALL FOR PAPERS

IEEE AP-S/URSI 2026

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

General Co-Chairs

Premjeet ("Prem") Chahal
Michigan State University
Amir Mortazawi
University of Michigan

Technical Co-Chairs

Jeff Nanzer
Michigan State University
Leung Tsang
University of Michigan
Asimina Kiourti
Ohio State University
Mei Song Tong
Tongi University

Finance Chair

Andrew Peterson
Georgia Institute of Tech.

Courses and Workshop

Tony Grbic
University of Michigan
Sean Hum
University of Toronto

Special Sessions

Mauro Ettorre
Michigan State University
Joel Johnson
Ohio State University
Saranraj Karuppuswami
General Motors

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

November 14, 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



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