

CALL FOR PAPERS

ICEAA IEEE APWC USNC-URSI RSM

HYBRID FORMAT / August 9-13, 2021

Live & in-person > Honolulu, Hawaii, USA

Virtual event > Customized conference platform

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ICEAA 2021

International Conference on
Electromagnetics in Advanced
Applications

IEEE APWC 2021

IEEE-APS Topical Conference on
Antennas and Propagation in Wireless
Communications

USNC-URSI RSM 2021

USNC-URSI Radio Science Meeting

The 22nd edition of the International Conference on Electromagnetics in Advanced Applications (ICEAA 2021), the 10th edition of the IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications (APWC 2021), and the 2021 edition of the USNC-URSI Radio Science Meeting have been rescheduled to 9-13 August 2021 and will be held in Honolulu, Hawaii, USA, in a hybrid format in light of the global mass COVID-19 vaccination campaigns. The conferences are technically sponsored by the Politecnico di Torino, by the University of Illinois at Chicago, and by the Torino Wireless Foundation. The three conferences consist of invited and contributed papers, and share a common organization, registration fee, submission site, workshops and short courses, banquet, and social events. Summaries may be submitted to the IEEE Xplore Digital Library.

Information for Authors

Authors must submit an extended abstract or a summary paper electronically by April 3, 2021. Authors of accepted contributions must submit the executed copyright form and registration electronically by May 25, 2021. Instructions are found on the website. Each registered author may present no more than three papers, with the second and third papers incurring additional fees. All papers must be presented by one of the authors. Please refer to the website for details.

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Deadlines

Summary or extended abstract submission	April 3, 2021
Notification of acceptance	May 17, 2021
Presenter registration	May 25, 2021



ICEAA Topics

1. Adaptive and reconfigurable antennas
2. Complex media
3. Electromagnetic applications to biomedicine
4. Electromagnetic applications to nanotechnology
5. Electromagnetic education
6. Electromagnetic measurements
7. Electromagnetic modeling of devices and circuits
8. Electromagnetic packaging
9. Electromagnetic properties of materials
10. Electromagnetic theory
11. EMC/EMI/EMP
12. Finite methods
13. Frequency selective surfaces
14. High power electromagnetics
15. Integral equation and hybrid methods
16. Intentional EMI
17. Inverse scattering and remote sensing
18. Metamaterials and metasurfaces
19. Optoelectronics and photonics
20. Phased and adaptive arrays
21. Plasma and plasma-wave interactions
22. Printed and conformal antennas
23. Radar cross section and asymptotic techniques
24. Radar imaging
25. Radio astronomy (including SKA)
26. Random and nonlinear electromagnetics
27. Reflector antennas
28. Technologies for mm and sub-mm waves

APWC Topics

1. Active antennas
2. AI in electromagnetic applications
3. Antennas and arrays for security systems
4. Channel modeling
5. Channel sounding techniques for MIMO systems
6. Cognitive radio
7. Communication satellite antennas
8. DOA estimation
9. EMC in communication systems
10. Emergency communication technologies
11. Indoor and urban propagation
12. Low-profile wideband antennas
13. MIMO systems
14. Mobile networks
15. Multi-band and UWB antennas and systems
16. OFDM and multi-carrier systems
17. Propagation models
18. RFID technologies
19. Signal processing antennas and arrays
20. Small mobile device antennas
21. Smart antennas and arrays
22. Space-time coding
23. Vehicular antennas
24. Wireless communications
25. Wireless mesh networks
26. Wireless power transmission and harvesting
27. Wireless security
28. Wireless sensor networks

URSI RSM Topics

Commission A - Electromagnetic Metrology

- A.1 Microwave to sub-millimeter measurements/standards
- A.2 Quantum metrology and fundamental concepts
- A.3 Time and frequency
- A.4 Time-domain metrology, EM-field metrology
- A.5 EMC and EM metrology
- A.6 Noise
- A.7 Materials
- A.8 Bioeffects and medical applications
- A.9 Antennas
- A.10 Impulse radar
- A.11 Interconnect and packaging
- A.12 Test facilities
- A.13 THz metrology
- A.14 High-Frequency and millimeter wireless metrology

Commission B - Fields and Waves

- B.1 Antenna arrays
- B.2 Antenna theory, design, and measurements
 - B.2.1 Active antennas
 - B.2.2 Active and passive antenna matching
 - B.2.3 Antenna measurement techniques
 - B.2.4 Small antennas
 - B.2.5 Other antenna topics
- B.3 Complex, novel, or specialized media
 - B.3.1 Electromagnetic-bandgap (EBG) structures
 - B.3.2 Biological media
 - B.3.3 Geophysical media
 - B.3.4 Metamaterials
- B.4 Educational methods and tools
- B.5 Electromagnetic interaction and coupling
- B.6 Frequency-selective surfaces and filters
- B.7 Guided waves and wave-guiding structures
- B.8 High-frequency techniques
- B.9 Imaging, inverse scattering, and remote sensing
- B.10 Microstrip antennas and printed devices

B.11 Millimeter-wave and terahertz antennas

- B.12 MIMO antennas and systems
- B.13 Nanoscale electromagnetics
- B.14 Nonlinear electromagnetics
- B.15 Numerical methods
 - B.15.1 Fast methods
 - B.15.2 Finite-difference methods
 - B.15.3 Frequency-domain methods
 - B.15.4 Hybrid methods
 - B.15.5 Integral-equation methods
 - B.15.6 Time-domain methods
- B.16 Optimization techniques
- B.17 Propagation phenomena and effects
- B.18 Rough surfaces and random media
- B.19 RFID
- B.20 Scattering and diffraction
- B.21 Theoretical electromagnetics
- B.22 Transient fields, effects, and systems
- B.23 Ultra-wideband electromagnetics
- B.24 Wireless communications
- B.25 Wireless sensors and sensing networks
- B.26 Cognitive radio
 - B.26.1 Reconfigurable antennas
 - B.26.2 Simultaneous transmit and receive systems
 - B.26.3 Spectrum enhancement techniques

Commission C - Radio Communication and Signal Processing Systems

- C.1 Cognitive radio and software-defined radio
- C.2 Computational imaging and inverse methods
- C.3 Information theory, coding, modulation, and detection
- C.4 MIMO and MISO systems
- C.5 Radar systems, target detection, localization, and tracking
- C.6 Radio communication systems
- C.7 Sensor networks, and sensor array processing and calibration
- C.8 Signal and image processing

C.9 Spectrum and medium utilization

- C.10 Synthetic aperture and space-time processing
- C.11 Ground-penetrating radar (GPR)

Commission E - Electromagnetic Environment and Interference

- E.1 Electromagnetic environment
 - E.1.2 Manmade noise
- E.2 Electromagnetic compatibility measurement technologies
- E.3 Electromagnetic compatibility standards
- E.5 Electromagnetic radiation hazards
- E.6 Electromagnetic compatibility education
- E.7 Computational electromagnetics in electromagnetic compatibility
- E.8 Effects of natural and intentional emissions on system performance
 - E.8.1 Crosstalk
 - E.8.3 System analysis
 - E.8.4 Signal integrity
 - E.8.5 Electromagnetic compatibility in communication systems
 - E.8.6 Statistical analysis
- E.9.2 Electromagnetic pulse and lightning
- E.10 Spectrum management

Commission F - Wave Propagation and Remote Sensing

- F.1 Point-to-point propagation effects
 - F.1.1 Measurements
 - F.1.2 Propagation models
 - F.1.3 Multipath/mitigation
 - F.1.4 Scattering/diffraction
 - F.1.5 Surface/atmosphere interactions
 - F.1.6 Numerical weather prediction
 - F.1.7 Dispersion/delay
- F.2 Microwave remote sensing of the Earth
 - F.2.1 Atmospheric sensing
 - F.2.2 Ocean and ice sensing

F.2.3 Field campaigns

- F.2.4 Interferometry and SAR
- F.2.5 Subsurface sensing
- F.2.6 Radiation and emission
- F.2.7 Soil moisture & terrain
- F.3 Propagation and remote sensing in complex and random media

Commission H - Waves in Plasmas

- H.1 Physics of the radiation belts and active experiments in space
- H.2 Natural and stimulated emissions in the ionosphere and magnetosphere
- H.3 Simulation of space plasma-wave interactions in laboratory

Commission K - Electromagnetics in Biology and Medicine

- K.1 Body-area networks
- K.2 Dosimetry and exposure assessment
- K.3 Electromagnetic and mixed-mode imaging and diagnostics
- K.4 Therapeutic and rehabilitative applications
- K.5 Implantable and ingestible devices
- K.6 Human-body interactions with antennas and other electromagnetic devices

