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Meeting Plenary Highlight: *Electromagnetics in Medicine*

Contacts: John L. Volakis (Commission B Chair), volakis@ece.osu.edu
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**USNC-URSI Chair:** David R. Jackson, (713) 743-4426, djackson@uh.edu
**USNC-URSI Secretary:** Sembiam Rengarajan, (818) 677-3571, srengarajan@csun.edu

**COMMISSION A, Electromagnetic Metrology**
Steven J. Weiss, (301) 394-1987
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**TOPICS**
- Antennas
- Bioeffects and medical applications
- EM-field metrology
- EMC and EM pollution
- Impulse radar
- Interconnect and packaging
- Materials
- Microwave to submillimeter measurements/standards
- Millimeter-wave and sub- mm wave communications
- Noise
- Planar structures and microstrip circuits
- Quantum metrology and fundamental concepts
- Time and frequency
- Time domain metrology

**COMMISSION B, Fields and Waves**
John L. Volakis, (614) 292-5846, volakis@ece.osu.edu

**TOPICS**
- Antenna arrays
- Antenna theory, design and measurements
- Cognitive radio
- Complex media (metamaterials, bandgap structures, biological and geophysical media, and others)
- Educational methods and tools
- Electromagnetic interaction and coupling
- Guided waves and waveguiding structures
- High-frequency techniques
- Inverse scattering and remote sensing
- Microstrip and printed devices and antennas
- Nonlinear electromagnetics
- Numerical methods (differential- and integral-equation based, hybrid and other techniques)
- Propagation phenomena and effects
- Rough surfaces and random media
- Scattering

**COMMISSION C, Radio-communication Systems and Signal Processing**
Gregory H. Huff, (979) 862-4161, ghuff@tamu.edu

**TOPICS**
- Cognitive radio
- Computational imaging and inverse methods
- Distributed sensor networks
- Physics-based signal processing
- Radar systems
- Radar target detection, localization, and tracking
- Sensor array processing and calibration
- Signal processing for radar remote sensing
- Statistical signal processing of waves in random media
- Synthetic aperture and space-time processing

**COMMISSION D, Electronics and Photonics**
Zoya Popovic, (303) 492-0374,
Zoya.Popovic@colorado.edu

**TOPICS**
- Electronic devices, circuits, and applications
- Photonic devices, circuits, and applications
- Physics, materials, CAD, technology and reliability of electronic and photonic devices, in radio science and telecommunications
- Wide bandgap materials

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**Abstract / Summary Submissions and Student Paper Competition Submissions are due by September 21, 2015**

This is a FIRM DEADLINE!
Please visit www.nrsmboulder.org
COMMISSION E, Electromagnetic Environment and Interference
Charles Baylis, (254) 710-4306, Charles_Baylis@baylor.edu

TOPICS
Communication in the presence of noise
Effects of natural and intentional emissions on system performance
Electromagnetic compatibility in: computational electromagnetics, education, measurement technologies, standards, and radiation hazards
High-power electromagnetic effects of transients on electronic systems
Spectrum management and utilization

COMMISSION F, Wave Propagation and Remote Sensing
Michael H. Newkirk, (240) 228-6976
Michael.Newkirk@jhuapl.edu

TOPICS
Point-to-point propagation effects:
Measurements Mobile/fixed paths
Propagation models Horizontal/slant paths
Multipath/mitigation Surface/Earth/atmosphere interactions
Land or water paths Numerical weather prediction
Scattering/diffraction Dispersion/delay
Indoor/outdoor links Natural/man-made structures
Microwave remote sensing of the earth:
Atmospheric sensing Ocean and ice sensing
Field campaigns Interferometry and SAR
Subsurface sensing Scattering/diffraction
Radiation and emission Propagation effects
Urban environments Soil moisture & terrain
Propagation and remote sensing in complex and random media

COMMISSION G, Ionospheric Radio and Propagation
Sigrid Close, (650) 725-2863, sigridc@stanford.edu

TOPICS
Ionospheric imaging
Ionospheric morphology
Ionospheric modeling and data assimilation
Radar and radio techniques for ionospheric diagnostics
Space weather – radio effects
Transionospheric radio propagation and systems effects

COMMISSION H, Waves in Plasma
Anatoly V. Streltsov, (386) 226-7137, streltsa@erau.edu

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

COMMISSION J, Radio Astronomy
David DeBoer, (510) 520-9077, ddeboer@berkeley.edu

TOPICS
Atacama Large Millimeter Array – Systems and Science
Digital Developments
Timing and Transients
SKA Technical Development
Emerging Instrumentation and Techniques
New telescopes, techniques, and observations
Timely technical tutorials

COMMISSION K, Electromagnetics in Biology and Medicine
Mahta Moghaddam, (213) 740-4712, mahta@usc.edu

TOPICS
Biological effects
Dosimetry and exposure assessment
Electromagnetic imaging and sensing applications
Human body interactions with antennas and other electromagnetic devices
Therapeutic, rehabilitative and other biomedical applications

ERNEST K. SMITH USNC-URSI STUDENT PAPER COMPETITION
Prizes will be awarded to three student papers. Awards will be made for First Prize in the amount of $1000, Second Prize at $750, and Third Prize at $500. The deadline for submission of full papers on the meeting website is September 21, 2015. Please see www.nrsmboulder.org for additional information, or contact the Student Paper Chair, Prof. Erdem Topsakal, Dept. of ECE, Virginia Commonwealth University, etopsakal@vcu.edu. Student papers and awards will be presented at the Plenary Session on Thursday morning, January 7, 2016. Student Paper Competition participants will have the option of submitting their full papers for publication in a special section of the journal Radio Science.

ABSTRACT AND SUMMARY SUBMISSION
The organizers of this meeting require the use of electronic submission. Details and instructions may be found at the conference website, www.nrsmboulder.org. Authors may choose to submit to special sessions in addition to the general topics listed above. A list of special sessions will be available on the conference website. All abstracts or summaries must be submitted online by Monday, September 21, 2015. If you have any questions on abstract/summary submission or the technical program, please direct them to the USNC-URSI Secretary, Sembiam Rengarajan, at srengarajan@csun.edu. Abstracts must have a minimum of 250 words. You will not be able to submit an abstract that does not meet the minimum length requirements. After abstract or summary submission is complete, please note that registration is required to attend any session of the meeting or to present a paper. More information about USNC-URSI is available at www.usnc-urgi.org.

Questions about the conference
For questions concerning conference logistics, please contact:
Christina Patarino, Phone: (303) 492-5151, Fax: (303) 492-5959, E-mail: christina.patarino@colorado.edu