



IEEE MTT-S International Microwave Symposium *Microwaves on My Mind*



June 15-20, 2008
Atlanta, Georgia
www.ims2008.org



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Call for Papers

The IEEE MTT-S International Microwave Symposium 2008 (IMS 2008) will be held in Atlanta, Georgia, Sunday, June 15 through Friday, June 20, 2008, as the centerpiece of Microwave Week 2008. Technical papers describing original work in research, development, and application of RF and microwave theory and techniques are solicited.

Microwave Week 2008: The IMS 2008 technical sessions will run from Tuesday through Thursday of Microwave Week. Workshops will be held on Sunday, Monday, and Friday. In addition to IMS 2008, a microwave exhibition, a historical exhibit, the RFIC Symposium (www.rfic2008.org), and the ARFTG Conference (www.arftg.org) will also be held in Atlanta during Microwave Week 2008.

Electronic Paper Submission: Technical papers for this symposium must be submitted via the IMS 2008 website, www.ims2008.org. Complete information on how to submit a paper and register for the conference, as well as other important information, can be also found at the IMS 2008 website.

Proposals Invited: Workshop (Tutorial through Expert level), Special Session (Focused and Honorary), and Panel/Rump Session proposals are invited. To suggest topics, or to volunteer to help organize or participate in a Workshop, Special Session, or Panel Session, contact the appropriate committee member listed on this page.

Atlanta, Georgia, is home to many fun and exciting activities for you and your family to experience. Visit the world's largest aquarium with eight million gallons of fresh and marine water and more than 100,000 animals from around the globe. Browse the world's largest collection of Coca-Cola memorabilia and hunt for the "secret formula" at the brand new World of Coke. Stroll through Centennial Olympic Park on your way to experience world news live on the CNN Studio Tour. Catch the latest action in MLB baseball with an Atlanta Braves game at Turner Field or experience the world's largest laser light show at Stone Mountain Park. All of these adventures and more await you on the IMS 2008 guest tour roster. For additional information please visit www.atlanta.net.

Electronic Submission Deadlines

Proposals for short workshops, panels, and special sessions:	September 14, 2007
Manuscripts for review:	December 7, 2007
Final manuscripts:	March 7, 2008
All submissions must be made through the IMS 2008 portal:	www.ims2008.org

ALL SUBMISSIONS MUST BE IN PDF FORMAT

Hard copies not accepted

The authors are responsible for formatting. Font embedding must be IEEE Xplore compatible.

Additional Steering Committee Members: Farrokh Ayazi, Bhaskar Banerjee, Keefe Bohannon, Cathy Beam, DeeDee Bennett, Daphne Bronner, Yi-Jane E. Chen, Charlie Coulter, John Cressler, Debasis Dawn, Mononita Ghosal, John Hacker, Gordon Harrison, Deuk Hyoun Heo, Vince Hietala, Per O. Iversen, Jeff Kemp, Kevin Kornegay, Devi Laskar, Kirk Laursen, Daniel Leatherwood, Jonghoon Lee, Timothy Lee, Mark Mitchell, Frank Neston, Barry Perlman, Andy Peterson, Roger Pollard, Luis Resta, Pete Rodrigue, Luca Roselli, Charlie Rucker, Amanda Scacchitti, Bruce Schmuckler, Chris Scholz, Shyh-Chiang Shen, Jim Stratigos, Dane Thompson, Anya Traille, Ryan Tyson, Jack Vickers, Jeff Waggoner, Brent Wagner, and Jim Wiltse.

Technical Paper Submission

To submit a paper, start by downloading a template from www.ims2008.org. Authors must adhere to the format provided in this template. The paper must be in PDF format and the file size must be less than 1 MB.

Submit the paper at www.ims2008.org by December 7, 2007. Late submissions will not be considered. The system will only accept four pages, including text and figures.

Authors of accepted papers will be required to submit a final paper for publication in the Symposium CDROM. Notice of paper acceptance and the necessary information to electronically submit this final version of the paper will be sent to the authors in January 2008.

Paper Selection Criteria: All submissions must be in English. IMS 2008 Technical Program subcommittees will review the papers. The selection criteria will include the following factors:

- *Originality:* How is the contribution unique, significant, and state-of-the-art?
- *Quantitative content:* Does the paper give an explicit description of the work with complete supporting data?
- *Clarity:* Is the contribution clear? Is the writing and accompanying figures clear and understandable? Are references to previous work by the authors and others included?
- *Interest to MTT-S membership:* Why should this work be reported at this conference?

Clearances: It is the author's responsibility to obtain all required company and government clearances prior to submitting a paper. A statement signed by the submitting author that such clearances have been obtained and a completed IEEE copyright form must accompany the final manuscript of each accepted paper.

Details regarding clearances will be available through the paper submission website (www.ims2008.org).

Technical Areas: Author-selected technical areas (see next page) will be used to determine the appropriate review committees. Choose a primary and alternative area when you complete the author registration form. The paper abstract should contain information that clearly reflects the choice of area. The IMS 2008 TPC may transfer inappropriately placed papers into more appropriate subcommittees.

Presentation Format: The International Microwave Symposium offers three types of presentations:

- **Full-Length Papers** report significant contributions, advancements, or applications of microwave technology in a formal presentation format with limited audience interaction.
- **Short Papers** typically report specific refinements or improvements in the state-of-the-art in a formal presentation format with limited audience interaction.
- **Interactive Forum Papers** provide an opportunity for authors to present theoretical or experimental results in greater detail in a poster format, and/or to display hardware, perform demonstrations, and conduct discussions in an informal manner with interested colleagues.

The author's preference will be honored where possible, but the paper will be placed in the most appropriate area and presentation format consistent with the constraints of the Technical Program. All presentations at IMS 2008 will be given using electronic data projection. No 35-mm slide projectors or overhead transparency projectors will be available.

Student Paper Contest: A Student Paper Contest will be held as part of the Symposium. Student papers will be reviewed in the same manner as all other conference papers. Papers accepted for the competition will be judged on content and presentation. First, second, and third prizes will be awarded. To be considered for an award, the student must have been a full-time student (minimum 9 hours/term graduate, 12 hours/term undergraduate) during the time the work was performed, be the lead author, and must present the paper at the Symposium. The student is required to provide the e-mail address of the advisor as a part of the paper submission process. A memorandum will be automatically sent to the advisor to certify that the work is primarily that of the student.

Notification: Authors will be notified of the decision in January 2008. Authors of accepted papers will be notified by e-mail. The acceptance letter will refer the author to the website for forms and detailed instructions for preparing manuscripts for publication. Final manuscripts must be received by March 7, 2008, to be published on the CD-ROM and to qualify for presentation at the Symposium.

Technical Areas

1. Field Analysis and Guided Waves

Novel guiding structures, new physical phenomena in transmission lines and other wave guiding structures, and new analytical methods for solving guided-wave problems.

2. Frequency Domain Techniques

Frequency domain methods for numerical solution of electromagnetic problems, including field interactions with devices, circuits, and with other physical processes.

3. Time Domain Techniques

Time domain methods for numerical modeling of high frequency electronics, including modeling based on physical behaviors (electromagnetic, semiconductor, thermal, mechanical).

4. CAD Algorithms and Techniques

Circuit analysis methods, optimization methods, statistical analysis.

5. Linear Device Modeling

Linear models of active and passive devices, models.

6. Nonlinear Device Modeling

Large-signal device models, characterization, parameter extraction, validation.

7. Nonlinear Circuit Analysis and System Simulation

Harmonic balance, simulation techniques, distortion and spurious analysis, system simulations, and behavioral modeling.

8. Transmission Line Elements

Planar, non-planar, and micromachined transmission lines and waveguides, including periodic and metamaterial-type structures, discontinuities, junctions, and transitions.

9. Passive Circuit Elements

Couplers, dividers/combiners, hybrids, resonators, lumped element approaches to circuit design.

10. Planar Passive Filters and Multiplexers

Innovative synthesis and analysis of planar filters and multiplexers. Includes planar superconducting structures.

11. Non-Planar Passive Filters and Multiplexers

Waveguide, dielectric resonator, and non-planar superconducting structures.

12. Active and Integrated Filters

Integrated filters (on Si, LTCC, LCP, MCM-D, GaAs, ...), active, tunable, and reconfigurable filters. Filters based on metamaterials, DGS, EBG, and other structures.

13. Ferroelectric, Ferrite, and Acoustic Wave Components

Ferroelectric devices, bulk and thin film ferrite components, surface and bulk acoustic wave devices including FBAR devices.

14. MEMS Components and Technologies

RF microelectromechanical and micromachined components and subsystems: switches, resonators, tunable passive filters, phase shifters, reconfigurable filters, and antennas. Modeling, packaging, reliability, novel materials, and assembly processes.

15. Semiconductor Devices and Monolithic IC Technologies

Multifunction and monolithic integrated components: RF, microwave, and millimeter-wave MMICs on GaAs, SiGe ICs, and other technologies. MMIC manufacturing, reliability, failure analysis, yield, and cost.

16. Signal Generation

CW and pulsed oscillators, VCOs, DROs, YTOs, PLOs, and frequency synthesizers. Applications of new devices and resonators, noise in oscillators, DDS techniques.

17. Frequency Conversion and Control

Electronic switches, phase shifters, limiters, mixers, frequency multipliers, and frequency dividers.

18. HF/VHF/UHF Technologies and Applications

Technology for HF, VHF, and UHF including passive and active components, lumped and distributed elements, transmitters and receivers.

19. Power-Amplifier Devices and Integrated Circuits

Design and performance of discrete and IC power amplifiers for RF, microwave, and millimeter-wave signals, wide bandgap devices.

20. High-Power Amplifiers

High-power amplifier design and characterization, linearization techniques, power combining techniques, vacuum electronics.

21. Low Noise Components and Receivers

Low-noise amplifiers, detectors, devices, receivers, radiometers, models, and characterization methods for low-noise circuits and components.

22. Millimeter Wave and Terahertz Components and Technologies

Millimeter wave components, technologies, and applications above 30 GHz, submillimeter wave/terahertz devices, instruments, and applications including THz imaging.

23. Microwave Photonics

Microwave/optical interactions and device technology. Wireless over fiber, free-space optical technology, broadband cable applications of photonics, optical transmission effects.

24. Signal Processing Circuits and Systems at GHz Speeds

High-speed mixed-signal components, modules and subsystems; ADC, DAC, and DDS; backplanes, signal integrity and equalization; electrical/optical interfaces and transmission; Software Defined Radio; MIMO and coherent systems.

25. Packaging, Interconnects, MCMs, and Hybrid Manufacturing

Dielectrics and substrates, component and subsystem packaging, assembly methods, hybrid integration, interconnects and multi-chip modules (MCMs), hybrid manufacturing, yield and cost.

26. Instrumentation and Measurement Techniques

Network, time-domain, and spectral measurements, field mapping, error correction and estimation, materials measurements.

27. Biological Effects and Medical Applications

Biomedical applications of microwaves, applications in biology, microwave fields and interactions in tissues.

28. Smart Antennas, Spatial Power Combining, and Phased Arrays

Smart antennas for wireless applications, spatial power combining, phased arrays, retrodirective systems, T/R modules, multiple-beam scanning, active integrated antennas.

29. Radars and Broadband Communication Systems

Broadband and MMW communication systems for terrestrial, vehicular, satellite, and indoor applications. Radar systems and subsystems. UWB systems and subsystems.

30. Wireless and Cellular Communication Systems

Wireless system and transceiver architectures for 3G/4G for cellular system, WLAN, UWB, WIMAX, Software defined radio, and Cognitive radio system.

31. Sensors and Sensor Systems

RFID, IVHS, wireless microsensors, nondestructive testing, imaging, and remote sensing.



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