IEEE MTT-S
INTERNATIONAL MICROWAVE SYMPOSIUM

Microwaves Across the Pacific

June 3–8, 2007
Honolulu, Hawaii
www.ims2007.org

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Call for Papers

The IEEE MTT-S International Microwave Symposium 2007 (IMS 2007) will be held in Honolulu, Hawaii, Sunday, June 3 through Friday, June 8, 2007 as the centerpiece of Microwave Week 2007. Technical papers describing original work in research, development, and application of RF and microwave theory and techniques are solicited.

Microwave Week 2007: The IMS 2007 technical sessions will run from Tuesday through Thursday of Microwave Week. Workshops will be held on Sunday, Monday, and Friday. In addition to IMS 2007, a microwave exhibition, a historical exhibit, the RFIC Symposium (www.rfic2007.org), and the ARFTG Conference (www.arftg.org) will also be held in Honolulu during Microwave Week 2007.

Electronic Paper Submission: Technical papers for this symposium must be submitted via the IMS 2007 website, www.ims2007.org. Complete information on how to submit a paper and register for the conference, as well as other important information, can be found at the IMS 2007 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.

The Hawaiian Islands are a world-renowned visitor destination with many activities for you and your family to enjoy. Snorkel among tropical fish at Hanauma Bay. Learn to surf at Waikiki Beach. Golf at one of more than 80 courses and world-class resorts. Explore fiery lava flows on the Big Island. Hike through lush rainforests on Kauai. Cruise down a Maui volcano on a mountain bike. Many of these and other historical Hawaiian cultural activities will be part of our guest program. For more information in several languages, visit www.gohawaii.com

Electronic Submission Deadlines

Proposals for short courses, workshops, panels, and special sessions:	September 15, 2006
Manuscripts for Review:	December 1, 2006
Final Manuscripts:	March 1, 2007
All submissions must be made through the IMS 2007 portal:	www.ims2007.org

ALL SUBMISSIONS MUST BE IN PDF FORM **Hard copies not accepted**

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

Additional Steering Committee Members: Keith Abe, Derek Ah Yo, Jason Akagi, Justin Akagi, Trevor Bird, Daniel Branch, Joseph Cardenas, Kendall Ching, Bill Deal, Chad Deckman, Lisa DeLisio, Ky-Hien Do, Timothy Fujishige, Darren Goshi, Cynthia Hang, Jerry Hausner, Cheryl Ishii, Reece Iwami, Charlie Jackson, Eric Kaneshiro, Shigeo Kawasaki, Hee Kyung Kim, Michael Kim, Kevin Kobayashi, Hiroshi Kondoh, John Kuno, Kory Kurokawa, Chushiro Kusano, Tom Lambert, Hai-Young Lee, Timothy Lee, Wendy Lee, Kevin Leong, Dorothy Lewis, Jenshan Lin, Louis Liu, Michael Majerus, Ryan Miyamoto, Karen Miyashiro, Shogo Miyoshi, Blaine Murakami, Geok Ng, Yoshio Nikawa, Aaron Oki, Ryan Pang, Jeff Pond, Yongxi Qian, Vesna Radisic, Justin Roque, Dave Rutledge, Jim Schellenberg, Arvind Sharma, Sanghoon Shin, Grant Shiroma, Stacey Shiroma, Chic Shishido, Mansoor Siddiqui, Richard Snyder, Chenyan Song, Noriharu Suematsu, Stephen Sung, Steve Swift, Bela Szendrenyi, Brandon Takase, Eric Taketatsu, Michael Tamamoto, Tyler Tamashiro, Eduardo Tinoco, Wade Tonaki, Karl Varian, Monte Watanabe, Jim Weiler, Larry Whicker, Ke Wu, Dale Yee, Huan Chun Yen

Technical Paper Submission

To submit a paper, start by downloading a template from www.ims2007.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.ims2007.org by December 1, 2006. 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 CD-ROM. 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 2007.

Paper Selection Criteria: All submissions must be in English. IMS 2007 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.ims2007.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 2007 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 2007 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 paper must be written by no more than three authors and the lead author must be the only student. 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 2007. 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 1, 2007 to be published in 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 band-gap 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. ***Digital Circuits and Systems at GHz Speeds***
    High-speed mixed-signal components, modules, and subsystems; ADC, DAC, DDS and Software Defined Radio; interconnections and backplanes; signal integrity and equalization; electrical/optical interfaces and transmission.
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***
    Cellular systems, transmitter and receiver architectures, wireless LANs and WANs, 802.11x, software defined radio, Bluetooth, UWB, ZigBee, CDMA, GSM, GPRS, and EDGE.
31. ***Sensors and Sensor Systems***
    RFID, IVHS, wireless microsensors, nondestructive testing, imaging, and remote sensing.

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Call for Papers