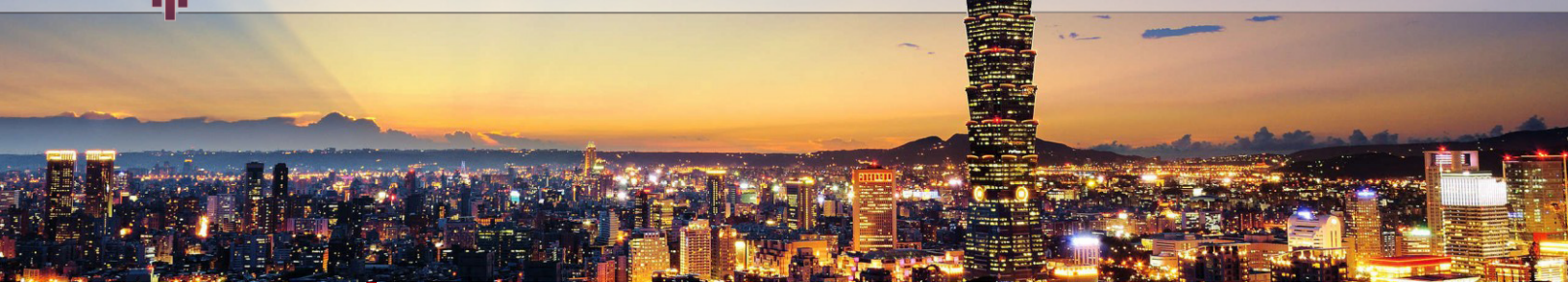


2014 IEEE International Frequency Control Symposium

Taipei International Convention Center
Taipei, Taiwan

May 19 - 22, 2014



General Chair:

Wan-Thai Hsu
Micrel
Wan-Thai.Hsu@micrel.com

Technical Program Committee Chair:

Gregory Weaver
JHU Applied Physics Laboratory
gregory.weaver@jhuapl.edu

Local Organizing Committee Chair:

Sheng-Shian Li
National Tsing-Hua University
ssli@mx.nthu.edu.tw

Finance Chair & TPC Administration:

Debra Coler
OEwaves
Debra.Coler@oewaves.com

Academic Chair:

Leo Reindl
University of Freiburg
leonhard.reindl@imtek.uni-freiburg.de

Editorial Chair:

Aaron Partridge
SiTime
ap@sitime.com

Tutorial Chair:

Gianluca Piazza
Carnegie Mellon University
piazza@ece.cmu.edu

Conference Management:

Lauren Pasquarelli
Conference Catalysts, LLC
lauren@conferencecatalysts.com

Exhibits:

Interested? Please contact
Sue Kingston
skingston1514@gmail.com

Awards:

Send award nominations to
gregory.weaver@jhuapl.edu

Important Dates:

Abstract Submission Deadline:

January 10, 2014

Acceptance Notifications:

February 20, 2014

Final Paper Submission Deadline:

March 28, 2014

Authors are invited to submit abstracts covering recent and original work of interest to the frequency control community in the topics listed below. The 2014 Symposium aims to highlight manufacturing methods and technologies that realize emerging products in MEMS resonator-based devices, quartz micro-clocks, and advanced atomic frequency standards, so contributions in these areas are encouraged.

The ATF 2014 workshop is a technical co-sponsor of the symposium, so members of the APMP (Asia Pacific Metrology Programme) TCTF (Technical Committee on Time and Frequency) and NMIs (National Measurement Institute) are encouraged to submit abstracts. Paper selection and publication will follow past rules established by IEEE and the IFCS.

Group 1: Materials, Resonators, & Resonator Circuits

- A. Fundamental Properties of Materials
- B. Micro- and Macro-Fabrication Technology for Resonators and Filters
- C. Theory, Design, and Performance of Resonators and Filters, including BAW, BAR, MEMS, NEMS, SAW, and others
- D. Reconfigurable Frequency Control Circuits, e.g., Arrays, Channelizers

Group 2: Oscillators, Synthesizers, Noise, & Circuit Techniques

- A. Oscillators – BAW, MEMS, and SAW
- B. Oscillators - Microwave to Optical
- C. Heterogeneously Integrated Miniature Oscillators, e.g., Single-Chip
- D. Synthesizers, Multi-Resonator Oscillators, and Other Circuitry
- E. Noise Phenomena and Aging
- F. Measurements and Specifications
- G. Timing Error in Digital Systems and Applications

Group 3: Microwave Frequency Standards

- A. Microwave Atomic Frequency Standards
- B. Atomic Clocks for Space Applications
- C. Miniature and Chip Scale Atomic Clocks and other instrumentation
- D. Fundamental Physics, Fundamental Constants, & Other Applications

Group 4: Sensors & Transducers

- A. Resonant Chemical Sensors
- B. Resonant Physical Sensors
- C. Vibratory and Atomic Gyroscopes & Magnetometers
- D. BAW, SAW, FBAR, and MEMS Sensors
- E. Transducers
- F. Sensor Instruments

Group 5: Timekeeping, Time and Frequency Transfer, GNSS Applications

- A. TAI and Time Scales, Time and Frequency Transfer, and Algorithms
- B. Satellite Navigation (Galileo, GPS, ...)
- C. Telecommunications Network Synchronization, RF Fiber Frequency Distribution
- D. All-optical fiber frequency transfer
- E. Optical free-space frequency transfer
- F. Frequency and Time Distribution and Calibration Services

Group 6: Optical Frequency Standards and Applications

- A. Optical Ion and Neutral Atom Clocks
- B. Optical Frequency Combs and Frequency Measurements
- C. Ultra-stable Laser Sources and Optical Frequency Distribution
- D. Ultra-stable Optical to Microwave Conversion

Organized and Sponsored by



www.ifcs2014.org

Location: The 2014 IEEE International Frequency Control Symposium will be held at the Taipei International Conference Center (TICC) in Taipei, Taiwan. The TICC is situated in the foothills of eastern Taipei's Hsin-yi District, an area where the modern face of Taipei shines with glass and steel skyscrapers, one of the tallest buildings in the world, wide boulevards, and the Taipei World Trade Center complex. As the political, economic, and cultural center of Taipei, the district houses many landmark buildings, including the Taipei City Hall, Taipei City Council, National Dr. Sun Yat-Sen Memorial Hall, and Taipei 101.

Manufacturers' Forum: On Wednesday, May 21st there will be a special session for manufacturers. Frequency control device manufacturers are invited to bring forward review topics or emerging processing technology in the following:

- Process control and/or quality metrics
- Manufacturing methods or technology approaches
- System engineering applied to customer needs
- Capacity planning for emerging device production

Six 10 minute slots will be awarded by the Technical Committee based on relevance, novelty, and contribution to the community. 30 minutes will be reserved for open-mike participation for directed Q&A, follow-up or new topics.

Student Travel Support: Limited funds will be available to support students. Awards will be made on a competitive basis. Further information will be posted on the conference website.

Student Paper Competition: Students submitting abstracts for presentation are invited to participate in a student paper competition. To participate, the student must be the lead author and present the paper. If the paper is selected for oral presentation, the student must also provide a poster to participate in the competition, since judging will be based partly on the students' ability to articulate and explain their research to a panel of judges. Winners will receive an award and a certificate. Further information is on the conference website. Student authors selected for the Student Paper Competition will be given preference for travel support. A request to be considered for the student paper competition must be made at the time of abstract submission.

Tutorials: On Monday, May 19 there will be a series of tutorials covering a wide range of related topics. The tutorials include both the fundamental topics of frequency and timing at a level suitable for practitioners new to the field, and more advanced and specialized topics related to specific areas. As such, the tutorials aim to provide useful knowledge to the beginners in the community, as well as those with extensive experience. Additional information and topics will follow.

Exhibition: The organizing committee is looking forward to our first Asian conference with the expectation of a great interest on the part of the world's leading frequency control device manufacturers and supporting suppliers to have the opportunity to demonstrate their capabilities and products. For information on arranging for exhibit space, please contact: Sue Kingston at skingston1514@gmail.com or Wan-Thai Hsu at Wan-Thai.Hsu@micrel.com

Award Nominations: Nominations and suggestions of candidates for the IEEE/UFFC Cady, Rabi and Sawyer Awards should be sent to the IEEE/IFCS Awards Chairman gregory.weaver@jhuapl.edu
(Also see "Awards" at <http://ifcs2014.org/general/awards>)

Abstract Submission: Abstracts will be collected through a web-based submission tool. For abstract submission, please visit the paper submission website at <http://www.epapers.org/ifcs2014>

Visit the IFCS 2014 website for more information:
www.ifcs2014.org