

Commission B, “ Fields and Waves ”
Activity report
September 2008–February 2009

1 ISAP 2008

This conference is to provide a forum for the presentation and discussion of recent advances in the fields of antennas and the propagation, in order to exchange ideas and information among worldwide researchers in these fields.

1.1 Statistics

Date: 27–30 October, 2008

Location: Taipei, Taiwan.

Web page: <http://www.isap08.org/index.htm>

Number of oral presentations: 404

Number of poster presentations: 88

Oral contributions from Japan: 135

Poster contributions from Japan: 36

1.2 Technical sessions

- Microstrip and Printed Antennas
- Millimeter Wave and Sub-Millimeter Wave Antennas
- Active and Integrated Antennas
- Reflector/Lens Antennas and Feeds
- Array Antennas, Phased Arrays and Feeding Circuits
- Optical Technology in Antennas
- Small Antennas
- Mobile and Base Station Antennas
- Adaptive and Smart Antennas
- Antenna Measurements
- Multiband/wideband Antennas
- Slot Antennas
- Mobile and Indoor Propagation
- Remote Sensing
- Mobile Channel Characterization and Modeling
- SAR Polarimetry and Interferometry
- Millimeter and Optical Wave Propagation
- Ionospheric Propagation
- Earth-Space and Terrestrial Propagation
- Radio Astronomy
- Biological Effects and Medical Applications

- Subsurface Sensing
- High Power Microwave Applications
- EMC/EMI Simulations and Measurements
- Advanced Materials for EM Applications
- Chip Level Electromagnetic Phenomena
- Interconnection and Packaging
- UWB and Impulse Radio
- RFID and Applications
- Ubiquitous Network Systems
- Satellite Communication Systems
- Radio Technologies for Intelligent Transportation Systems
- Complex/Artificial Media and Metamaterials
- Scattering and Diffraction
- Computational Electromagnetics
- Wave Guiding Structures
- Theoretical Electromagnetics and Analytical Methods
- Periodic and Band-Gap Structures
- High-Frequency Techniques
- Time Domain Techniques
- Inverse Problems
- Microwave Circuits
- Random Media and Rough Surfaces

2 Japanese EMT Symposium 2008

2.1 Statistics

Date: November 20-22, 2008

Location: Takayama, Japan

Number of oral presentations: 67

Number of attendees: 95

2.2 Summary

The Technical Committee on Electromagnetic Theory (EMT) is jointly established in the Institute of Electronics, Information and Communication Engineers (IEICE), and in the Institute of Electrical Engineers of Japan (IEEJ), in order to maintain the qualified position of Japan in the field of the electromagnetic theory, by promoting the collaboration with foreigners and by bringing up the young Japanese colleagues who would contribute to the global activation of the electromagnetic society.

The technical committee regularly holds the annual Electromagnetics Theory Symposium for the past 37 years. The scope of the symposium includes;

- Fundamental theory of electromagnetics (including relativistic theory, quantum electrodynamics, etc.)

- Analysis theory of electromagnetic fields
- Numerical solutions and modeling of electromagnetic fields
- Simulation techniques of electromagnetic fields
- Scattering and diffraction of electromagnetic waves
- Interaction of electromagnetic fields with media (including laser, plasma, random media, etc.)
- Nonlinear problems
- Inverse problem, inverse scattering
- Electromagnetic environment
- Electromagnetic effect on biological systems
- Other related fields.

3 Future Conferences

3.1 EuCAP 2009

The 3rd European Conference on Antennas and Propagation

Date: 23–27 March, 2009

Venue: Berlin, Germany

Web page: http://www.eurel.org/Conferences_en/eucap2009/Homepage.htm

3.2 PIERS 2009 in Beijing

The 25th Progress In Electromagnetics Research Symposium

Date: 23–27 March, 2009

Venue: Beijing, CHINA

Web page: <http://piers.mit.edu/piers2k9beijing/>

3.3 2009 IEEE AP-S & USNC/URSI

The 2009 IEEE International Symposium on Antennas and Propagation and the 2009 USNC/URSI (U.S. National Committee of the International Union of Radio Science) National Radio Science meeting

Date: 1–5 June, 2009

Venue: Charleston, SC., U.S.A.

Web page: <http://www.apsursi2009.org/>

3.4 PIERS 2009 in Moscow

The 26th Progress In Electromagnetics Research Symposium

Date: 18–21 August, 2009

Venue: Moscow, Russia

Web page: <http://piers.mit.edu/piers2k9Moscow/>

3.5 ISAP 2009

2009 International Symposium on Antennas and Propagation

Date: 20–23 October, 2009

Venue: Bangkok, Thailand

Web page: <http://www.isap09.org/>