

March 2009

**Activity Report of URSI-F**

Reported by Y. Yamaguchi (Chair)

**1. Commission meetings in the period of September 2008 – March 2009**(For more detail, please see <http://www2.nict.go.jp/pub/ursi-f/>)

## (1) No.527 meeting

Date: Sept. 26, 2008 Place: Hiroshima-city University

Three technical papers were presented:

1. A Study on Scale Model Method for Mobile Propagation
2. Propagation Characteristics of UHF-band TV Broadcasting Waves over the Seto Inland Sea
3. Development of precipitation retrieval algorithm for satellite-borne microwave sounders
4. Analysis of the Normalized Radar Cross Section for the Rain Rate Estimate from the TRMM Precipitation Radar
5. Examples of four-component scattering power decomposition applied to quad. pol. Data
6. A study on open-loop controlled transmission diversity in FDD systems based on super resolution multipath delay estimation by MUSIC method

## (2) No. 528 Meeting

Date: Oct. 16-17, 2008 Place: Tohoku-Gakuin University, Sendai

This meeting was held under the co-sponsorship of the IEICE professional groups on AP and IEEE AP/S Japan Chapter. One paper relevant to the field of URSI-F were presented:

1. Numerical analysis of electromagnetic environment of terrestrial digital broadcasting

For more details, please see:

[http://www.ieice.org/ken/program/index.php?mode=program&tgs\\_regid=599e7395597e005bb50a9e414263e65af861d23c23cc4e1e69b2dcec8e0537d9&tgid=AP&layout=&lang=1](http://www.ieice.org/ken/program/index.php?mode=program&tgs_regid=599e7395597e005bb50a9e414263e65af861d23c23cc4e1e69b2dcec8e0537d9&tgid=AP&layout=&lang=1)

## (3) No.529 meeting

Date: Nov. 13, 2008 Place: Tokyo Denki University, Tokyo

Two technical papers were presented:

1. Developemnt of UWB Space-Time Channel Sounder Based on an OFDM
2. Estimation of Propagation Characteristics for Outdoor MIMO Measurements

## (4) No.530 meeting

Date: Dec. 11, 2008 Place: NiCT, Koganei, Tokyo

Three technical papers were presented:

1. Suggestion for 3-D Electromagnetic Field Intensity Measurement using 2-D Lock-in Amplifier
2. Investigation of dead tree detection by polarimetric FMCW SAR data
3. Ocean surface backscattering measured by C-band polarimetric weather radar in Okinawa

## (5) No.531 meeting

Date: Jan. 21-23, 2009 Place: NiCT, Koganei

This meeting was held under the co-sponsorship of the IEICE professional groups on AP and IEEE AP/S Fukuoka Chapter. Eight papers relevant to the field of URSI-F were presented:

1. A study on year-to-year variation of the frequency scaling characteristics in Ka and Ku band satellite communication links
2. Propagation Analysis of Incident Waves to a Tunnel Using Aperture Field Method and Ray-tracing Method
3. Error correction method using neural network trained by measurement data in ray-tracing propagation prediction
4. Time-Spatial Propagation Model in LOS condition for Broadband Mobile Communication Systems

5. An empirical study of radio wave shadowing by human body
6. A High-Resolution Direction and Delay Time Finding Measurement Scheme of Digital Terrestrial TV Multipath Signal based on the Total Recording Scheme
7. Analysis of Electromagnetic Wave Propagation in Periodical and Fractal Multilayer media Using FDTD method
8. An Analysis of Electromagnetic Wave Propagation in buildings with a Curved Passage by Using the CIP Method

For more details, please see:

[http://www.ieice.org/ken/program/index.php?mode=program&tgs\\_regid=a4513e7ef8e9f0b128666f47de121cbc79c58f34a1f45dcab136fb93fdf7204c&tgid=AP&layout=&lang=l](http://www.ieice.org/ken/program/index.php?mode=program&tgs_regid=a4513e7ef8e9f0b128666f47de121cbc79c58f34a1f45dcab136fb93fdf7204c&tgid=AP&layout=&lang=l)

(6) No.532 meeting

Date: March 6, 2009 Place: NTT Yokosuka

Three technical papers were presented:

1. Experimental Study of Path Loss Characteristics for Train Internet Systems
2. Complex Envelope and Phase Correlation Coefficient in Domain with Time and Frequency Axes in Multi-path
3. Polarization Characteristics of Directional Channel in the Microcell Scenario

**2. Commission meeting to be scheduled**      <http://www2.nict.go.jp/pub/ursi-f/#meeting>

No.533 Meeting    Date: April 10, 2009    Place: Osaka Prefecture University, Osaka

**3. Others**

IGARSS 2011 will be held in Sendai, Japan. The organizing committee made a proposal to Science Council of Japan.