

July 28, 2014

**Activity Report of URSI-F**

Reported by Y. Maekawa (Chair)

**1. Commission meetings in the period of April – July 2014**(For more detail, please see <http://ursi-f.nict.go.jp/>)

## (1) No. 584 Meeting

Date: April 25, 2014 Place: Kanto Gakuin University (Kanagawa)

Three papers were presented:

1. Measurement of Enhanced Backscattering from Randomly Distributed Spherical Conductive Scatterers at 60GHz (II)
2. R&D of Passive Radar – Water Vapor Estimation Using Digital Terrestrial Broadcasting Wave–
3. A Study on the Characteristics of Rain Attenuation Duration Time of Ku-Band Satellite Communications Links in the Equatorial Region

## (2) No. 585 Meeting

Date: May 29-30, 2014 Place: Okinawa Industry Support Center (Okinawa)

This meeting was held under the co-sponsorship of IEICE Technical Committees on AP and IEEE AP-S Japan Chapter. Three papers relevant to the field of URSI-F were presented:

1. Precise measurement method of propagation characteristics using the Digital Terrestrial Television Broadcasting
2. Relationship between Rain Attenuation Duration Time of Ku-Band Satellite Communications Links and Speeds of Rain Area Motion in Equatorial Region
3. Evaluation of Measurement Interval of Location Fingerprint in Location Estimation Method Based on Propagation Characteristics

For more details, please see: <http://www.ieice.org/cs/ap/jpn/>

## (3) No. 586 Meeting

Date: June 26, 2014 Place: The University of Electro-Communications (Tokyo)

Three papers were presented:

1. Measurement-based Radio Environment Database for High Efficient Spectrum Sharing
2. Analysis of Indoor Propagation Characteristics for Active Propagation Control
3. Experimental Study to confirm that a Transmit Beamforming of Wireless LAN Access Point with Some Dipole Antennas Forms Only an Omni Directional Pattern in an Azimuth Plane – Example of Cisco ClientLink which is a Kind of Implicit Feedback Transmit Beamforming of Wireless LAN Access Point without Using a Dedicated Software and Hardware in a Client Terminal –

## (4) No. 587 Meeting

Date: July 24-25, 2014 Place: Gero Shimin-Kaikan (Gifu)

This meeting was held under the co-sponsorship of IEICE Technical Committees on AP and SAT, and IEEE AP-S Nagoya Chapter. 17 papers relevant to the field of URSI-F were presented in the special sessions organized for recent propagation issues:

1. Path Loss Variation Characteristics at Sub-millimeter Wave Band in Street microcell environment
2. Propagation measurements in time-varying channels via super-resolution algorithms
3. Characteristics of Urban Cellular Radio Channels at 11 GHz
4. A Study on Performance Evaluation of 2x2 MIMO channel for Inter-Terminal Radio Communications in LOS Propagation Environments

5. Performance Evaluation of 4x2MIMO channel for Indoor Environment with Propagation Path Shadowing by Moving people
6. Diversity techniques to compensate rain attenuation for millimeter-wave satellite communications
7. Evaluation of Impact of Interference on Broadcasting Satellite Services in Terms of Increase of Outage Time Caused by Rain Attenuation
8. A Study of Rain Attenuation on Short-term Rainfall in Some Points with Different Yearly Rainfall Rates – A Basic Study for Compensation of Rain Attenuation by Locally Variable EIRP System for 21GHz-band Broadcasting Satellites –
9. Measurements on Overreach Propagation of FM and TV Broadcasting Waves from Korea
10. Precision measurement of the propagation characteristics using the Digital Terrestrial Television Broadcasting – Measurement method using a single channel –
11. Verification of Applicability of Modified Hata Model to 3 GHz Band
12. Reproducibility of Mobile Propagation Loss at 20GHz in 1/133 Scale Model for Residential Areas – Applied Conditions of Scale Model –
13. Study of propagation channel Fading prediction algorithm
14. Study on Analysis Method of Outdoor-to-Indoor Radio Propagation – Hybrid Method of Ray-Tracing and Physical Optics –
15. On revision of indoor penetration loss in 3GPP model
16. Cluster Power Variation Estimation Method in Crowded Indoor Propagation Environment
17. Antenna de-embedding and antenna-channel recombination of MIMO system: feasibility investigation in spherical wave domain

For more details, please see: <http://www.ieice.org/cs/ap/jpn/>

## 2. Others

2014 Asian Workshop on Antennas and Propagation (AWAP) was held in Kanazawa, Ishikawa. Date: May 14-16, 2014.