

Friday, August 25, 2017 16:00-17:40 510AC

Session B35

High-Resolution Electromagnetic Sensing and Imaging

Session Chairs: Alexander Yarovoy, Natalia Nikolova

16:00 B35-1 (Invited) SUPER-RESOLUTION ARRAY RADAR IMAGING OF HUMAN BODIES FOR HEARTBEAT MONITORING

T. Sakamoto<sup>1</sup>, P. J. Aubry<sup>2</sup>, A. G. Yarovoy<sup>2</sup>, S. Okumura<sup>3</sup>, H. Taki<sup>4</sup>, T. Sato<sup>3</sup>

<sup>1</sup>University of Hyogo, Japan; <sup>2</sup>Delft University of Technology, The Netherlands;

<sup>3</sup>Kyoto University, Japan; <sup>4</sup>Tohoku University, Japan

16:20 B35-2 (Invited) MICROWAVE COMPUTATIONAL IMAGING: SIMPLIFYING RF ARCHITECTURES WITH CAVITIES AND METASURFACES

T. Fromenteze<sup>1,2</sup>, C. Decroze<sup>1</sup>, O. Yurduseven<sup>2</sup>, D. R. Smith<sup>2</sup>

<sup>1</sup>Xlim Research Institute, University of Limoges, France; <sup>2</sup>Duke University, USA

16:40 B35-3 (Invited) DUAL-POLARIZATION COHERENCE FACTOR FOR CLUTTER REDUCTION IN FORWARD-LOOKING GROUND PENETRATING RADAR IMAGING

D. Comite<sup>1</sup>, F. Ahmad<sup>2</sup>, T. Dogaru<sup>3</sup>, M. G. Amin<sup>1</sup>

<sup>1</sup>Villanova University, United States; <sup>2</sup>Temple University, United States; <sup>3</sup>Army Research Lab, United States

17:00 B35-4 (Invited) OBSERVATIONS ON PHANTOM STABILITY AND ANTENNA ARRANGEMENT FOR MICROWAVE TRACKING OF BREAST TISSUE CHANGES

M. Popovic, L. Kranold, M. Kezzo, McGill University, Canada

17:20 B35-5 (Invited) AUTOFOCUS COMPRESSED SENSING IMAGING BASED ON NONLINEAR CONJUGATE GRADIENT

T. Jin, National University of Defense Technology, China (CIE)

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Session BD36

Advances in Antennas for RFID

Session Chairs: Smail Tedjini, Ville Viikari, Apostolos Georgiadis

16:00 BD36-1 DESIGN OF A CHIPLESS RFID TAG LOADED WITH SQUARE SPIRAL RESONATOR

J. Y. Siddiqui, University of Calcutta, India; S. Datta, Heritage Institute of Technology, India

16:20 BD36-2 SENSITIVITY ENHANCEMENT BY PARITY-TIME SYMMETRY IN WIRELESS TELEMETRY SENSOR SYSTEMS

P.-Y. Chen, Wayne State University, United States

16:40 BD36-3 (Invited) ALTERNATIVE IMPLEMENTATIONS OF SMALL ALL-PLATFORM UHF RFID TRANSPONDERS

K. Jaakkola, VTT Technical Research Centre of Finland Ltd., Finland

17:00 BD36-4 (Invited) ON THE TAG DETECTION IN NEAR-FIELD UHF RFID APPLICATIONS

A. Michel<sup>1</sup>, M. Pino<sup>2</sup>, P. Nepa<sup>1</sup>, G. Manara<sup>1</sup>

<sup>1</sup>University of Pisa, Italy; <sup>2</sup>University of Oviedo, Spain

17:20 BD36-5 ON THE TRANSFORMATION OF SYMBOLS AND FIGURES TO RFID TAGS

A. Abdelnour<sup>1</sup>, A. Rennane<sup>2</sup>, D. Kaddour<sup>1</sup>, S. Tedjini<sup>1</sup>

<sup>1</sup>Université Grenoble Alpes - LCIS, France; <sup>2</sup>Instrumentation Laboratory, FEI USTHB University, Algeria

Friday, August 25, 2017 16:00-17:40 513A

Session C35

5G Small Cell Networks (3)

Session Chairs: Jie Zhang, Andres Glazunov, Xiaoli Chu

16:00 C35-1 (Invited) A PROPOSED ELEVATION ANGLE MODEL FOR SMALL CELL ENVIRONMENTS

Q. Hong, H. Hu, H. Li, H. Zheng, B. Zhang, J. Zhang, The university of Sheffield, UK

16:20 C35-2 MILLIMETER WAVE WIDEBAND HIGH GAIN ANTENNA BASED ON GAP WAVEGUIDE TECHNOLOGY

A. U. Zaman, A. A. Glazunov, Chalmers University of Technology, Sweden

16:40 C35-3 LOW-PAPR CONDITION FOR 5G-CANDIDATE WAVEFORMS

M. Ben Mabrouk, M. Chafii, Y. Louët, F. Bader, CentraleSupélec, France

17:00 C35-4 (Invited) SMALL CELL DEPLOYMENT OPTIMIZATION WITH A NEW PROPOSED PATHLOSS MODEL UNDER INDOOR SCENARIOS

H. Zheng<sup>1</sup>, J. Zhang<sup>2</sup>, Q. Hong<sup>1</sup>, H. Li<sup>1</sup>, H. Hu<sup>1</sup>, J. Zhang<sup>1</sup>

<sup>1</sup>the University of Sheffield, United Kingdom; <sup>2</sup>Lanzhou University, China

17:20 C35-5 (Invited) SYSTEM-LEVEL PERFORMANCE OF MMWAVE CELLULAR NETWORKS FOR URBAN MICRO ENVIRONMENTS

N. Rupasinghe<sup>1</sup>, Y. Kakishima<sup>2</sup>, I. Guvenc<sup>1</sup>

<sup>1</sup>North Carolina State University, United States; <sup>2</sup>DOCOMO Innovations, Inc., United States

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Session DA33

Optical Methods for Microwave Metrology

Session Chairs: Mark Bieler, Chuntao Yang

16:00 DA33-1 (Invited) MICROWAVE PHOTONICS RESEARCH AT KRISS

D.-J. Lee, Y.-P. Hong, J.-Y. Kwon, N.-W. Kang, KRISS, South Korea

16:20 DA33-2 (Invited) PHOTODIODE CALIBRATION COMPARISON BETWEEN ELECTRO-OPTIC SAMPLING AND HETERODYNE MEASUREMENTS UP TO 75 GHz

A. Feldman, J. Jargon, T. Dennis, P. Hale, National Institute of Standards and Technology, United States

16:40 DA33-3 (Invited) OPTICAL FIBER LINK PORT EXTENDER FOR VECTOR NETWORK ANALYZER

S. Kurokawa, M. Hirose, National Institute of Advanced Industrial Science and Technology (AIST), Japan; Y. Toba, M. Onizawa, J. Ichijo, Seiko Giken, Japan

17:00 DA33-4 (Invited) MICROWAVE POWER MEASUREMENTS USING RYDBERG ATOMS

A. Michaud, National Research Council, Canada, Canada

17:20 DA33-5 (Invited) TRACEABLE MEASUREMENT OF TERAHERTZ POWER AND INTENSITY USING OPTICAL METHODS

Y. Deng, Q. Sun, National Institute of Metrology, China; M. Bieler, Physikalisch-Technische Bundesanstalt, Germany