CONFERENCE PROGRAM

09.05.2016 MONDAY

ROOM B		8:30-10:10
M1. Material Measurements and VNA Calibration		
Session Chairs:	Dominique Schreurs	*University of Leuven*
	Wojciech Wiatr	*Warsaw University of Technology*
M1.1	Evaluation of a Reflection Based Dehydration Sensing Method for Wristwatch Integration F. Trenz[1], R. Weigel[1], D. Kissinger[2,3] *[1]Institute for Electronics Engineering, Erlangen, [2]IHP, Frankfurt (Oder), [3]Technische Universität Berlin, Germany*	
M1.2	Designing TRL Standards for Accurate Measurement of 120° Accesses CPW Devices A. Ousman Bechir[1,2], V. Didier[1,2] *[1]Laboratoire Hubert Curien, Saint-Etienne, [2]Universite Jean Monnet, Saint-Etienne, France*	
M1.3	Electronic Calibration Unit for DC-8 GHz Vector-Network-Analyzer Measurements M. Abramowicz, A. Lewandowski *Warsaw University of Technology, Warsaw, Poland*	
M1.4	Removal of Mode Degeneration in Sapphire Disc WGM Resonator by a Small Radial Groove A. A. Barannik[1], N.T. Cherpak[1], V.N. Skresanov[1], V.V. Glamazdin[1], Y. He[2], L. Sun[2], O. Ya[1] *Usikov Institute of Radiophysics and Electronics, NAS of Ukraine, [2]Chinese Academy of Sciences, Beijing, China*	
M1.5	Investigation of Influence of Measurement Conditions on Accuracy of Material Characterization in sub-THz Frequency Range K. Godziszewski, Y. Yashchyshyn *Warsaw University of Technology, Warsaw, Poland*	

ROOM C		8:30-10:10
M2. Sensors		
Session Chairs:	Jan Machac	*Czech Technical University*
	Mateusz Mazur	*PIT-RADWAR*
M2.1	Wireless Multimodal Localization Sensor for Industrial Applications K. Bizewski, M. Tarkowski, M. Rzymowski, L. Kulas, K. Nyka *Gdansk University of Technology, Poland*	
M2.2	TDOA-TWR Based Positioning Algorithm for UWB Localization System M. Kolakowski, V. Djaja-Josko *Warsaw University of Technology, Poland*	
M2.3	Innovative Large Area Touch Sensor: Design and Tests of a Compact Acquisition System N. Selmene[1,2], S. Blayac[1], M. Muller[2], G. Abib[2] *[1]Mines Saint Etienne, Gardanne, [2]Telecom SudParis, Evry, France*	
M2.4	A Comparison of Two Ways to Reducing the Mutual Coupling of Chipless RFID Tag Scatterers M. Svanda, J. Machac, M. Polivka, J. Havlicek *Czech Technical University in Prague, Czech Republic*	
M2.5	UHF ESPAR Antenna for Simple Angle of Arrival Estimation in UHF RFID Applications M. Rzymowski, D. Duraj, L. Kulas, K. Nyka, P. Woznica *Gdansk University of Technology, Poland*	

ROOM D		8:30-10:10
M3. Antennas Arrays I		
Session Chairs:	Dirk Heberling	*RWTH Aachen University*
	Wlodzimierz Zieniutycz	*Gdansk University of Technology*
M3.1	Combining Reconfigurable Antennas into Linear Array for Dual-Plane Beamsteering A. Narbudowicz[1,2], M. J. Ammann[1], D. Heberling[2] *[1]Dublin Institute of Technology, Ireland, [2]RWTH Aachen University, Aachen, Germany*	
M3.2	Experimental Study of Signal Reception by Means of Time-Modulated Antenna Array G. Bogdan, M. Jarzynka, Y. Yashchyshyn *Warsaw University of Technology, Poland*	

M3.3	Experimental Verification of Sidelobe Level Reduction Technique for Circularly Polarized Antenna Array Fed by 8×8 Butler Matrix I. Slomian, K. Wincza, S. Gruszczynski *AGH University of Science and Technology, Krakow, Poland*
M3.4	Coplanar Stripline-Fed Microstrip Yagi-Uda Antenna for ISM Band Application A. Caliskan, F. Gunes, M.A. Belen, P. Mahouti, S. Demirel *Yıldız Technical University, Istanbul, Turkey*

ROOM E		8:30-10:10
M4. Applications of Active Devices		
Session Chairs:	Andrzej Jelenski	*Institute of Electronic Materials Technology, Poland*
	Robert Trew	*North Carolina State University*
M4.1	A 4.6-5.9 GHz Fully Integrated 0.25-µm CMOS Complementary LC VCO with Buffer Y. Jin[1], J. Bae[2], C. Nguyen[2] *[1]Avago Technologies, San Jose, [2]Texas A&M University, College Station, USA*	
M4.2	Dualband 180 GHz and 205 GHz Medium-Power High-Gain Amplifier on 130 nm BiCMOS J.D. Leufker, D. Fritsche, G. Tretter, C. Carta, F. Ellinger *Technische Universität Dresden, Germany*	
M4.3	Design and Fabrication of a Terahertz Imaging Array in 180-nm CMOS Process Technology K. Wakita[1], E. Sano[1], M. Ikebe[2], S. Arnold[3], T. Otsuji[3], Y. Takida[4], H. Minamide[4] *[1]Hokkaido University, Sapporo, [2]Hokkaido University, Sapporo, [3]Tohoku University, Sendai, [4]RIKEN center for advanced Photonics, Sendai, Japan*	
M4.4	Achieving Frequency Synchronization by GPS Disciplined Reference Signal C. Bicici, O. Cerezci *Sakarya University, Institute of Natural Sciences, Turkey*	
M4.5	Low Noise Amplifier Design for Ka Band VSAT Systems E. Curuk[1,2], M. M. Bilgic[3], K. Yegin[4], C. Ozdemir[1,2], S. Demirci[1] *[1]Mersin University, [2]Emtech IT Engineering Ltd. Co., Mersin, [3]Unitest Inc., Istanbul, [4]Ege University, Izmir, Turkey*	

ROOM B/C/D/E		10:40-12:10
MIKON Plenary Session – MRW'2016 Opening		
Session Chairs:	Franco Giannini	*University of Roma Tor Vergata*
	Jozef Modelski	*Warsaw University of Technology*
Welcome addresses:		
Prof. Taduesz Slomka	*Rector of the AGH University of Science and Technology*	
Prof. Ke Wu	*President of the IEEE Microwave Theory and Techniques Society*	
Prof. Antoni Rogalski	*Dean of the Technical Sciences, Polish Academy of Sciences*	
Prof. Marek Banaszkiewicz	*President of the Polish Space Agency*	
Keynote Presentations:		
Wireless Communications Approaching 5G: Implication on Radio and Semiconductor Technologies Josef Hausner *Intel Mobile Communications*		
Enabling Ambient Electromagnetic Energy Harvesting Ke Wu *University of Montreal*		

ROOM B		13:15-14:55
M5. High Performance Microwave Measurements		
Session Chairs:	Adam Abramowicz	*Warsaw University of Technology*
	Daniel Pasquet	*LaMIPS*
M5.1	Impact of Measurement Uncertainty on Modelling *(Invited)* D. Schreurs *Catholic University of Leuven, Belgium*	
M5.2	Resonance Methods for Characterization of Dielectrics, Semiconductors, Superconductors and Metamaterials *(Invited)* J. Krupka *Warsaw University of Technology, Poland*	
M5.3	Impact of the Duty Cycles on Pulse-to-Pulse Stability of a GaN Power Amplifier J. Delprato[1,2], M. Campovecchio[2], C. Toland[1], P. Eudeline[1], D. Barataud[2] *[1]Thales Air Systems, Ymare, [2]XLIM Research Institute, Limoges, France*	

M5.4	Multiparameter Measurements of Characteristics of Semiconductor Structures Using Microwave Photonic Crystals D. Usanov[1,2], S. A. Nikitov[2,1], A.V. Skripal[1,2], D. V. Ponomarev[1,2], E. V. Latisheva[1,2] *[1]Saratov State University, [2]Kotel'nikov Institute of Radio Engineering and Electronics, Russian Academy of Sciences, Moscow, Russian Federation*

ROOM C		13:15-14:55
M6. Microwave Components for Radar Applications		
Session Chairs:	Philippe Eudeline	*Thales Air Systems*
	Edward Sedek	*PIT-RADWAR*
M6.1	An Active Dispersive Delay Line in GaN MMIC Technology for X-Band Applications A. Salvucci, S. Colangeli, M. Palomba, G. Polli, E. Limiti *University of Rome Tor Vergata, Italy*	
M6.2	Modelling Carbon Nanotube Coated Structures – Comparison of Simulation Methods M. Szafranski[1], A. Kawalec[2], A. Dukata[2] *[1]Military Institute of Armament Technology, Zielonka, [2]Military University of Technology Warsaw, Poland*	
M6.3	Determination of Junction Temperature in AlGaN/GaN HEMTs for Radar Applications G. Brocero[1,2], Y. Guhel[2], J. Sipma[1], P. Eudeline[1], B. Boudart[2] *[1]Thales Air Systems, Ymare, [2]LUSAC, Cherbourg-Octeville, France*	
M6.4	Sige-Bicmos Based Technology Platforms for Mm-Wave And Radar Applications A. Mai, M. Kaynak *IHP, Frankfurt (Oder), Germany*	
M6.5	A Novel Ultra-Wide Band Design for Feeding Structure of Ka Band VSAT Parabolic Reflector Antenna E. Curuk[1,2], K. Yegin[3], C. Ozdemir[1,2] *[1]Mersin University, [2]Emtech IT Engineering Ltd. Co, [3]Ege University, Izmir, Turkey*	

ROOM D		13:15-14:55
M7. Antennas Analysis and Design		
Session Chairs:	Michail Andriychuk	*National Academy of Sciences of Ukraine*
	Eugeniusz Jaszczyszyn	*Warsaw University of Technology*
M7.1	**Wide-Scan Phased Array Antenna Fed by Coax-to-Microstriplines for 5G Cell Phones** N. Ojaroudiparchin, M. Shen, G. F. Pedersen *Aalborg University, Denmark*	
M7.2	**The Dispersion Diagram Used for Periodic Patterned Microstrip Antenna Analysis** R. Kubacki, S. Lamari, K. Rudyk *Military University of Technology, Warsaw, Poland*	
M7.3	**Fast Design Optimization of UWB Antennas Using Response Features** S. Koziel, A. Bekasiewicz *Reykjavik University, Iceland*	
M7.4	**A Novel Planar End-fire Circularly Polarized Dipole-Aperture Composite Antenna** W. Zhang[1], K. Tam[1], W. Lu[2] *[1]University of Macau, [2]Nanjing University of Posts and Telecommunications, China*	
M7.5	**Design and Analysis of Compact Size Dual Polarised Ultra Wideband MIMO Antennas with Simplified Decoupling Structure** A. Alfakhri[1], M. A. Ashraf[2], A. G. Alasaad[1], S. Alshebeili[2] *[1]Center of Excellence, Riyadh, [2]KACST-TIC in Radio Frequency and Photonics (RFTONICS), Riyadh, Saudi Arabia*	

ROOM E		13:15-14:55
M8. GaN Active Devices and Design		
Session Chairs:	Janusz Dobrowolski	*Warsaw University of Technology, Poland*
	Marian Pospieszalski	*National Radio Astronomy Observatory*
M8.1	**Design of Multi-Octave Highly Efficient 20 Watt Harmonically Tuned Power Amplifier** M. T. Arnous[1], G. Boeck[1,2] *[1]Berlin Institute of Technology, [2]Leibniz-Institut fuer Hochfrequenztechnick, Berlin, Germany*	
M8.2	**A 12-W GaN-HEMT Power Amplifier for Ku-Band Satellite Communication** D. Maassen[1], F. Rautschke[1], T. Huellen[3], G. Boeck[1,2] *[1] Berlin Institute of Technology, Berlin, Germany, [2]Ferdinand-Braun-Institut, Berlin, Germany, [3]GloMic GmbH, Berlin, Germany**	

* correction w.r.t. printed programme

M8.3	Recent Advances in kW-level Pulsed GaN Transistors with Very High Efficiency J. Custer, G. Formicone, J. Walker *Integra Technologies Inc., El Segundo, United States*
M8.4	Double-Pulse Characterization of GaN-on-Sapphire FETs for Technology Development G. Gibiino[1,3], P. Barmuta[2,3], R. Cignani[1], D. Niessen[1], A. Lewandowski[2], L. Dobrzanski[4], D. Schreurs[3], A. Santarelli[1] *[1]University of Bologna, Italy, [2]Warsaw University of Technology, Poland, [3]KU Leuven, Belgium, [4]Institute of Electronics Materials Technology, Warsaw, Poland*
M8.5	S-band GaN PolHEMT Power Amplifier M. Goralczyk, D. Gryglewski *Warsaw University of Technology, Poland*

ROOM A		14:55-15:40
P1. Interactive Forum (MIKON)		
Session Chairs:	Kamil Staszek	*AGH University of Science and Technology*
	Wojciech Wojtasiak	*Warsaw University of Technology*
P1.1	A New Method for Wireless Synchronization and TDOA Error Reduction in UWB Positioning System V. Djaja-Josko, J. Kolakowski *Warsaw University of Technology, Poland*	
P1.2	Quantum Nanorings as Effective Sensors of Terahertz Radiation V. Kachorovskii[1], K. Koshelev[1,3], M. Titov[2] *[1]A.F. Ioffe Physico-Technical Institute, [2]Radboud University, Institute for Molecules and Materials, [3]Peter the Great St. Petersburg Polytechnic University, Russian Federation*	
P1.3	Remote Synchronization of Atomic Clocks L. Sliwczynski[1], P. Krehlik[1], M. Lipinski[1], J. Nawrocki[2], A. Binczewski[3], J. Pieczerak[4], L. Buczek[1], J. Kolodziej[1] *[1]AGH University of Science and Technology, Krakow, [2]Astrogeodynamic Observatory Space Research Center AOS, Borowiec, [3]Poznan Supercomputing and Networking Center PSNC, [4]Orange Poland*	
P1.4	Locating the Sources of Strong ELF Electromagnetic Pulses Using Two Receivers Placed on Different Continents J. Mlynarczyk[1], A. Kulak[1], J. Kubisz[2] *[1]AGH University of Science and Technology, [2]Jagiellonian University, Krakow, Poland*	
P1.5	A Comparative Study Between Two Novel Fractal Monopole Antennas for UWB Applications I. Acharya *VIT University, Chennai, India*	

P1.6	**Microstrip SIW Patch Antenna Design for X Band Application** M.A. Belen, F. Gunes, A. Caliskan, P. Maahouti, S. Demirel, A. Yildirim *Yıldız Technical University, Istanbul, Turkey*
P1.7	**Linear Antenna Synthesis by an Amplitude Radiation Pattern** M. I. Andriychuk *Pidstryhach Institute for Applied Problems of Mechanics and Mathematics, NASU, Lviv, Ukraine*
P1.8	**Calculation of the Parameters of Rectangular Microstrip Antenna Using Various Resonator Models** V. Kizimenko, A. Ulanouski *Belarusian State University Of Informatics And Radioelectronics, Minsk, Belarus*
P1.9	**Terahertz Invetigations on Some Bi-Heterocyclic Compounds** K. Nowak[1], M. Grzelczak[1], B. Szlachetko[1], L.A. Sterczewski[1], P. Swiatek[2], S. Plinska[2], E.F. Plinski[1] *[1]Wroclaw University of Technology, [2]Wroclaw Medical University, Wroclaw, Poland*
P1.10	**The Design Concept of K-band Frequency Tripler** M. Skweres *PIT-RADWAR, Warsaw, Poland*
P1.11	**Generalized Equivalent Circuit Model of HEMT Including Distributed Gate Effects** M. Goralczyk *Warsaw University of Technology, Poland*
P1.12	**Small-Signal Lumped-Element Equivalent Model for High Operating Temperatures Infrared Photodetectors** K. Opalska[1], L. J. Opalski[1], W. Wiatr[1], J. Piotrowski[2], D. Kasprowicz[1] *[1]Warsaw University of Technology, [2]VIGO System SA, Ozarow Mazowiecki, Poland*
P1.13	**A Miniaturized Wilkinson Power Divider for Ultra Wide-band Operation** M. Iqbal[1], V. Camarchia[1], M. Pirola[1], R. Quaglia[2] *[1]Politecnico di Torino, Italy, [2]Cardiff University, UK*
P1.14	**Broadband Rat-Race Coupler in Suspended Stripline Technique for Measurements of Large-Signal S parameters** R. Smolarz, K. Wincza, S. Gruszczynski, *AGH University of Science and Technology, Krakow, Poland*
P1.15	**A DC Analytical AlGaN/GaN HEMT Model for Transistor Characterization** D. L. Kuchta, W. Wojtasiak, *Warsaw University of Technology, Poland*
P1.16	**Cylindrical Horn Antenna Array with Uprised Beam in Elevation** M. Mazur, I. Kurcaba *PIT-RADWAR, Gdansk, Polska*

P1.17	Slot Loop Antennas Printed on 3D Textile Substrate J. Spurek, J. Velim, M. Cupal, Z. Raida, J. Prasek, J. Hubalek *Brno University of Technology, Czech Republic*
P1.18	Radiation Pattern Synthesis for RADAR Application Using Genetic Algorithm A. P. Raniszewski *PIT-RADWAR, Warsaw, Poland*
P1.19	Low Phase Noise Synthesizer Optimised for Wideband 0-IF Radio Receiver L. Dabek, D. Gryglewski, D. W. Rosolowski, P. Korpas, W. Wojtasiak *Warsaw University of Technology, Poland*
P1.20	A LTCC Microwave-microfluidic Reactor P. Slobodzian, J. Macioszczyk, K. Malecha, L. Golonka *Wroclaw University of Technology, Wroclaw, Poland*
P1.21	Design of Dual-Polarized MIMO Linear Antenna Arrays with Increased Port-to-Port Isolation D. Wojcik, M. Surma, A. Noga, M. Magnuski *Silesian University of Technology, Gliwice, Poland*
P1.22	Resonant Excitations of the Second Harmonic in Dielectric-Graphene Metamaterials for Different Polarizations Y. Rapoport[1], V. Grimalsky[2], A. Lavrinenko[3], A. Boardman[4] *[1]Taras Shevchenko National University of Kyiv, Ukraine, [2]Autonomous University of State Morelos (UAEM), Cuernavaca, Mor., Mexico, [3]Technical University of Denmark, Kgs. Lyngby, Denmark, [4]University of Salford, UK*

ROOM B		15:40-17:00
M9. Wireless Communications		
Session Chairs:	Silvio Barbin	*Universidade de Sao Paulo*
	Krzysztof Wincza	*AGH University of Science and Technology*
M9.1	Theory and Demonstration of Non-Linear Communication System with Harmonic Diversity (*Invited*) K. Tam *University of Macau*	
M9.2	Ultrawideband Impulse Communications Using M-ary Digital Modulation Schemes M. G. Hussain, Y. M. Shishter, M. H. Al-Gharably *Kuwait University, Khaldyah Area 2, Kuwait*	
M9.3	A Simple Performance –Boosting Algorithm for Transmit Power Control in WLAN Access Points K. Staniec, M. Michalski *Wroclaw University of Technology, Poland*	

ROOM C		15:40-17:00
M10. Radar Technology		
Session Chairs:	Caner Ozdemir	*Mersin University, Mersin, Turkey*
	Piotr Samczynski	*Warsaw University of Technology*
M10.1	A Cost-Efficient 61 GHz High-Resolution Radar Sensor for Industrial Positioning and Distance Measurement S. Wibbing, S. Mann, F. Lurz, S. Erhardt, S. Lindner, R. Weigel, A. Koelpin *University of Erlangen-Nuremberg, Germany*	
M10.2	A Comparison of Two Ways to Reducing the Mutual Coupling of Chipless RFID Tag Scatterers M. Svanda, J. Machac, M. Polivka, J. Havlicek, *Czech Technical University in Prague, Czech Republic*	
M10.3	Phase-Error Compensation of a Pulsed Power Amplifier with a Vector Modulator in Radar Applications P. Zawada[1,2], P. Gontarek[1,2], P. Barmuta[1,3], M. Grzegrzolka[1], A. Lewandowski[1] *[1]Warsaw University of Technology, Poland, [2]PIT-RADWAR, Warsaw, Poland, [3]KU Leuven, Belgium*	
M10.4	Measurment of Distance, Velocity and Angle of Arrival Using FMCW-CW Combined Waveform D. Duraj, M. Plotka, M. Rzymowski, K. Nyka, L. Kulas *Gdansk University of Technology, Poland*	
M10.5	Distance and Vehicle Speed Estimation in OFDM Multipath Channels A. El Assaad[1], M. Krug[2], G. Fischer[3] *[1]Novero GmbH, Nuremberg, [2]Munich University of Applied Sciences, [3]University of Erlangen-Nuremberg, Germany*	

ROOM D		15:40-17:00
M11. Antennas for Communication Systems		
Session Chairs:	Ivan Prudyus	*Lviv Polytechnic National University*
	Marian Wnuk	*Military University of Technology*
M11.1	Architectures for Efficient Power Sharing in Active Multiple-Feed-per-Beam Satellite Antennas C. Rave, A. F. Jacob *Technische Universitaet Hamburg-Harburg, Germany*	

M11.2	Low-Profile Fabry-Perot Cavity Antenna with Metamaterial SRR Cells for Fifth Generation Systems N. Ojaroudiparchin, M. Shen, G. F. Pedersen *Aalborg University, Denmark*
M11.3	Multiband Fractal Antenna for C-Band Ground Station of Satellite TV in ITU Region-3 T. N. Cao[1,2], W. J. Krzysztofik[2] *[1]Vinh University, Nghe An, Viet Nam, [2]Wroclaw University of Technology, Poland*
M11.4	Coupling U-Shaped Triple-band Monopole Antenna with Parasitic Elements for WLAN and WiMAX Application C. Y. Chien , S. R. Yang *Lunghwa University of Science and Technology, Taoyuan, Taiwan*

ROOM E		15:40-17:00
M12. Advances in III-V Active Devices		
Session Chairs:	Gregor Boeck	*Berlin Institute of Technology, Germany*
	John Walker	*Integra Technologies Inc., El Segundo, USA*
M12.1	A Zone-Based Approach for Physics-Based FET Compact Models R. J. Trew *North Carolina State University, Raleigh, United States*	
M12.2	Resistive Bias Network for Optimized Isolation in SPDT Switches G. Polli, M. Palomba, S. Colangeli, A. Salvucci, E. Limiti *University of Rome Tor Vergata, Italy*	
M12.3	Characterization-oriented Design of a Compact GaAs MMIC 3-Stacked Power Cell C. Ramella[1], A. Piacibello[2], V. Camarchia[2], M. Pirola[2], R. Quaglia[3] *[1]University of Roma Tor Vergata, Italy, [2]Politecnico di Torino, Italy, [3]Cardiff University, UK*	
M12.4	Low Frequency Noise Spectroscopy and Threshold Characteristics of Laser Diodes J. Glemza, J. Matukas, S. Pralgauskaite *Vilnius University, Lithuania*	

ROOM PIANO	16:00-19:00
Chapter Chairs Meeting	

10.05.2016 TUESDAY

ROOM B		8:30-10:10
M13. RF and Microwave Receivers		
Session Chairs:	Tibor Berceli	*Budapest University of Technology and Economics*
	Bronislaw Stec	*Military University of Technology*
M13.1	L-Band SiGe HBT Active Differential Equalizers Providing Variable Positive or Negative Gain Slopes Y. Itoh, H. Takagi *Shonan Institute of Technology, Fujisawa, Japan*	
M13.2	Broadband Phase Detector as Microwave Correlator B. Stec, W. Susek, M. Czyzewski *Military University of Technology, Warsaw, Poland*	
M13.3	An Ultrawideband 1 to 6 GHz 0-IF Radio Receiver with 500 MHz of Instantaneous Bandwidth D. Rosolowski, D. Gryglewski, P. Korpas, W. Wojtasiak, J. Modelski *Warsaw University of Technology, Poland*	
M13.4	Evaluating Method of the On-board FM Receiver Characteristics Using MUSIC Method and the Two-Stage Method S. Komatsu, S. Imai, Taguchi, T. Kashiwa *Honda R&D Co., Ltd. Automobile R&D Center, 4630 Shimotakanezawa, Japan*	
M13.5	The SEMONT Network Utilization for the Low-frequency EMF Monitoring N. Djuric, J. Bjelica, D. Kljajic, M. Milutinov, K. Kasas-Lazetic, D. Antic *Faculty of Technical Sciences, University of Novi Sad, Yugoslavia*	

ROOM C		8:30-10:10
M14. Couplers		
Session Chairs:	Wojciech Gwarek	*Warsaw University of Technology*
	Ke Wu	*University of Montreal*
M14.1	On Design Optimization of Miniaturized Microscrip Dual-Band Rat-Race Coupler with Enhanced Bandwidth A. Bekasiewicz[1], S. Koziel[1], W. Zieniutycz[2] *[1]Reykjavik University, Iceland, [2]Gdansk University of Technology, Poland*	
M14.2	Wideband Substrate Integrated Waveguide Ku-Band Coupler A. O. Konc[1], D. Maassen[1], F. Rautschke[1], G. Boeck[1,2] *[1]Berlin Institute of Technology, [2]Ferdinand-Braun-Institut (FBH), Berlin, Germany*	
M14.3	High Directivity Microstrip Couplers A. Golaszewski, A. Abramowicz *Warsaw University of Technology, Poland*	
M14.4	Design Technique for Meta-Structure Planar Directional Couplers with Arbitrary Coupling Ratios Z. Qamar, W. Chan, D. Ho *City University of Hong Kong, Hong Kong*	
M14.5	Rapid Surrogate-Assisted Statistical Analysis of Compact Microstrip Couplers S. Koziel[1,2], A. Bekasiewicz[2,1] *[1]Reykjavik University, Iceland, [2]Gdansk University of Technology, Poland*	

ROOM D/E		8:30-10:10
IRS Plenary Session – Opening		
Session Chairs:	Hermann Rohling	*Technische Universitaet Hamburg*
	Krzysztof Kulpa	*Warsaw University of Technology*
Welcome addresses:		
Prof. Marek Banaszkiewicz	*President of the Polish Space Agency*	
Prof. Jozef Modelski	*Polish Academy of Science*	
Keynote Presentations:		
Terahertz Radar for Imaging Applications Goutam Chattopadhyay *NASA Jet Propulsion Laboratory, California Institute of Technology*		
European Defense Agency and Challenges Faced by Modern Radar Technology Ignacio Montiel-Sanchez *European Defense Agency*		
Interrupted SAR Image Reconstruction: Compressed Sensing Studies Les Novak *MIT Lincoln Lab (Retired)*		

ROOM PIANO		8:30-10:10
M15. Microwave Components and Systems		
Session Chairs:	Kam Weng Tam	*University of Macao*
	Dmitry Usanov	*Saratov State University*
M15.1	Resonant Measurement Method for Microwave Characterization of Bituminous Mixtures T. M. Karpisz[2,1], J. Skulski[1], B. W. Salski[1] *[1]Warsaw University of Technology, [2]QWED, Warsaw, Poland*	
M15.2	Substrate-Integrated Waveguide (SIW) Filter Design Using Space Mapping N. Leszczynska, M. Klinkosz, M. Mrozowski *Gdansk University of Technology, Poland*	
M15.3	Fast and Effective Tuned Coupling for Mono-Mode Microwave Power Applicators W. Gwarek, M. Celuch *Warsaw Univeristy of Technology, Poland*	

M15.4	Wireless Sensor Network Analysis and Optimization by 3D Electromagnetic Simulations for Research Rocket Application P. Kant, T. Chelstowski, K. Dobrzyniewicz, J. J. Michalski *SpaceForest, Gdynia, Poland*
M15.5	Modeling Interconnects for Thermoelectrically Cooled Infrared Detectors W. Wiatr[1], L. Opalski[1], J. Piotrowski[2], M. Krysicki[1] *[1]Warsaw University of Technology, [2]Vigo System, Ozarow Mazowiecki, Poland*

ROOM A		10:10 – 10:55
P2. Interactive Forum (MIKON)		
Session Chairs:	Kamil Staniec	*Wroclaw University of Technology*
	Daniel Gryglewski	*Warsaw University of Technology*
P2.1	Accelerating Frequency-Domain Simulations Using Small Shared-Memory CPU/GPU Cluster T. Topa, A. Noga, A. Karwowski *Silesian University of Technology, Gliwice, Poland*	
P2.2	FDTD Modeling of Weakly Conductive Wires Dispersed in a Dielectric Mixture B. Salski *Warsaw University of Technology, Poland*	
P2.3	Parallel Implementation of the DGF-FDTD Method on GPU Using the CUDA Technology T. P. Stefanski, T. Dziubak, S. Orlowski *Gdansk University of Technology, Poland*	
P2.4	HPEM Susceptibility Assessments of Data Storage Devices M. Bugaj, R. Przesmycki, M. Wnuk *Military University of Technology, Warsaw, Poland*	
P2.5	The Gyrotron Source for the EPR Spectroscopy M.G. Hruszowiec, Nowak, B. Szlachetko, M. Grzelczak, W. Czarczynski, E. F. Plinski, T. Wieckowski *Wroclaw University of Technology, Poland*	
P2.6	Computer Modeling of the Dark Soliton Formation Processes in Ferrite Films and Artificial Multiferroics at Microwaves M. A. Cherkasskii, A.V. Drozdovskii *St. Petersburg Electrotechnical University, Russian Federation*	

P2.7	Analytical Modeling for Optical Imaging of Controlled Object's Internal Structure L. Tereshchenko[1], I. Silantieva[2] *[1]National Aviation University, [2]National Transport University, Kyiv, Ukraine*
P2.8	Shielded Coupled Strip and Slot Guides with a Thin Of Omega Pseudochiral Medium Layer W. Marynowski, A. Kusiek, R. Lech, J. Mazur *Gdansk University of Technology, Poland*
P2.9	Some Aspects of Using Simplified Real Frequency Technique R. A. Borowiec *Wroclaw University of Technology, Poland*
P2.10	Super Wideband Conformal Antenna Array on Cylindrical Surface A. Narayan[1], G. S. Karthikeya[1], V. Karthik[1,2], P. Akshar[1,2], S. S. Siddiq[1] *[1]Dayananda Sagar College of Engineering , [2]BMS Institute of Technology and Management, Bangalore, India*
P2.11	Design and Realization of Dual Band Microstrip Monopole Antenna P. Mahouti, F. Gunes, M. A. Belen, A. Caliskan, S. Demirel *Yıldız Technical University, Istanbul, Turkey*
P2.12	Fractal Hexagonal Disc Shaped Ultra Wide Band Antenna A. N. Badr, A. M. Allam *German University in Cairo (GUC), Egypt*
P2.13	Nonreciprocal Properties of Elliptical Ferrite Coupled Line Junction A. Kusiek, W. Marynowski, J. Mazur *Gdansk University of Technology, Poland*
P2.14	Estimation of a Single Balun Parameters on the Base of Back-to-Back Measurements L. Sorokosz[1], W. Zieniutycz[2] *[1]PIT-RADWAR, [2]Gdansk University of Technology, Poland*
P2.15	Millimeter Wave Permittivity and Loss Tangent Measurements of LTCC Materials P. R. Bajurko *Warsaw University of Technology, Poland*
P2.16	Equivalent-Circuit Modeling of Coaxial-Connector Center-Conductor Gap L. J. Opalski, A. Lewandowski, A. Golaszewski, A. Abramowicz, W. Wiatr *Warsaw University of Technology, Poland*

P2.17	GPU Implementation of Multiline TRL Calibration for Efficient Monte-Carlo Uncertainty Analysis P. Linczuk, P. Zdunek, P. Barmuta, M. Kotz, A. Lewandowski *Warsaw University of Technology, Poland*
P2.18	Quality Control in Microelectronics Using Scanning Probe Microscopy T. Martinek, J. Kudelka, M. Navratil, V. Kresalek *Faculty of Applied Informatics, Tomas Bata University in Zlin, Czech Republic*
P2.19	The Gyrotron Magnetic System Design M. G. Hruszowiec, E. F. Plinski *Wroclaw University Of Technology, Poland*
P2.20	Synthesis of Synchronization Signals' Extraction Filtration Functions I. Prudyus, V. Miskiv, S. Miskiv, R. Yankevych *Lviv Polytechnic National University, Ukraine*
P2.21	An Open-Loop Approach to Optical Domain Combined Dual-Loop Optoelectronic Oscillator K. Madziar, B. Galwas *Warsaw University of Technology, Poland*

ROOM B		10:55-12:15
M16. Medical Applications		
Session Chairs:	Bogdan Galwas	*Warsaw University of Technology*
	Oksana Shramkova	*University of Crete*
M16.1	Bridging Millimeter-Wave Biophysics, Safety and Imaging (*Invited*) L. Perregrini *University of Pavia*	
M16.2	UWB Antenna for Brain Stroke and Brain Tumour Detection M. A. Shokry, A. M. Allam *German university in Cairo, Egypt*	
M16.3	Radar Range Improvement Using Gradient-Free Optimization for Health Care Applications P. Barmuta[1,2], M. Mercuri[3], P. J. Soh[4], P. Karsmakers[2], G. Vandenbosch[2], P. Leroux[2], A. Lewandowski[1], D. Schreurs[2], *[1]Warsaw University of Technology, Poland, [2]KU Leuven, Belgium, [3]Holst Centre / imec-NL, Eindhoven, Netherlands, [4]Universiti Malaysia Perlis, Malaysia*	

ROOM C		10:55-12:15
M17. Multiport Structures and Phase Shifters		
Session Chairs:	Maurizio Bozzi	*University of Pavia*
	Krzysztof Nyka	*Gdansk University of Technology*
M17.1	Transformer & Marchand Integrated Baluns of Extremely Small Size for 60 GHz Applications in 65 nm CMOS Technology V. Kolios, K. Giannakidis, G. Kalivas *University of Patras, Rio, Greece*	
M17.2	Miniaturized Compensated Quasi-Lumped Wideband Marchand Balun I. Piekarz, J. Sorocki, K. Wincza, S. Gruszczynski *AGH University of Science and Technology, Krakow, Poland*	
M17.3	Performance Limits of the Tunable Waveguide Phase Shifter V. Kazmirenko, I. Golubeva, Y. Prokopenko *National Technical University of Ukraine Kiev Polytechnic Institute, Ukraine*	
M17.4	Variable and Broadband Differential Phase Sections operating in the THz Frequency Range O. Kosiak, V. Bezborodov, Y. Kuleshov, O.Ya Usikov *Institute for Radio-Physics and Electronics National Academy of Sciences of Ukraine, Kharkiv, Ukraine*	

ROOM D		10:55-12:35
R1. SAR Systems		
Session Chairs:	Joachim Ender	*Universitat Siegen*
	Piotr Samczynski	*Warsaw University of Technology*
R1.1	Explicit Motion Compensation for Back Projection in Spotlight SAR A. Sommer, J. Ostermann *Leibniz Universitat Hannover, Germany*	
R1.2	Airborne Ka FMCW MiSAR System and Real Data Processing H. Wang[1], M. Jiang[2], S. Zheng[3] *[1]Institute of Electronics, Chinese Academy of Sciences Beijing, [2]Shandong Institute of Aerospace Electronic Technology Company, [3]Beihang University, Beijing, China*	
R1.3	Chosen Results of Flight Tests of WATSAR System P. Kaniewski, C. Lesnik, P. Serafin, M. Labowski *Military University of Technology, Warsaw, Poland*	

R1.4	Real-time Processing of SAR Images for Linear and Nonlinear Tracks R. Que, O. Ponce, R. Scheiber, A. Reigber *German Aerospace Center, Wessling, Germany*
R1.5	C-band SAR Radar Trials Using UAV Platform D. Gromek[1], P. Samczynski[1], K. Kulpa[1], G. C. Cruz[2], T. M. Oliveira[2], L. F. Felix[2], P. A. Goncalves[2], C. M. Silva[2], A. L. Santos[2], J. A. Morgado[2] *[1]Warsaw University of Technology, Poland, [2]Portuguese Air Force, Sintra, Portugal*

ROOM E		10:55-12:35
R2. Automotive Radar		
Session Chairs:	Hermann Rohling	*Technische Universitaet Hamburg*
	Krzysztof Kulpa	*Warsaw University of Technology*
R2.1	Traffic Monitoring Radar for Road Map Calculation R. Behrendt *Smart microwave sensors GmbH, Braunschweig, Germany*	
R2.2	Waveform and Receiver Parameters Design Choices for a Reconfigurable Digital FMCW Radar S. Neemat, O. Kransnov, A. Yarovoy *TU Delft, Netherlands*	
R2.3	35 GHz FMCW Drone Detection System J. Drozdowicz[1], M. Wielgo[1], P. Samczynski[1], K. Kulpa[1], J. Krzonkala[2], M. Mordzonek[2], M. Bryl[2], Z. Jakielaszek[2] *[1]Warsaw University of Technology, [2]Air Force Institute of Technology, Warsaw, Poland*	
R2.4	RF-based Child Occupation Detection in the Vehicle Interior A. R. Diewald[1], J. Landwehr[2], D. Tatarinov[2], P. Di Mario Cola[2], C. Watgen[2], C. Mica[2], M. Lu-Dac[2], P. Larsen[2], O. Gomez[2], T. Goniva[2] *[1]IEE, Contern, Luxembourg, [2]Hochschule Trier, Germany*	

ROOM PIANO		10:55-12:35
M18. Computational Techniques		
Session Chairs:	Ahmet Kizilay	*Yildiz Technical University*
	Slawomir Koziel	*Reykjavik University*
M18.1	Wideband Model Order Reduction for Macromodels in Finite Element Method G. Fotyga, K. Nyka *Gdansk University of Technology, Poland*	
M18.2	Resonant Frequencies in the Open Microstrip Structures Placed on Curved Surfaces R. Lech, A. Kusiek *Gdansk University of Technology, Poland*	
M18.3	Periodic Boundary Conditions in the FEM Using Arbitrary Meshes O. Ouchetto, S. Zaamoun *University Hassan II, Casablanca, Morocco*	
M18.4	Cost-Efficient Simulation-Driven Design of Compact Impedance Matching Transformers A. Bekasiewicz[1,2], S. Koziel[1,2] *[1]Reykjavik University, Iceland, [2]Gdansk University of Technology, Poland*	

ROOM B		13:15-14:55
M19. Radar Applications		
Session Chairs:	Bogdan Smolski	*Military University of Technology*
	Alexander Yarovoy	*Delft University of Technology*
M19.1	Automotive Radar and ADAS on Its Way to Autonomous Driving... (*Invited*) H. H. Meinel *Independent Automotive Radar Expert*	
M19.2	Development of a PWM Based Transmitter for P-band SAR Applications P. Colantonio[1], E. Cipriani[1], F. Giannini[1], L. Cabria[2], I. S. Gosh[3], U. Altmann[3], R. Follman[3], N. Ayllon[4] *[1]University of Roma Tor Vergata, Italy, [2]TTI Norte, Santander, Spain, [3]IMST GmbH, Kamp-Lintfort, Germany, [4]ESA Estec, Keplerlaan, Netherlands*	
M19.3	A 10W X-Band T/R Module for AESA D. Gryglewski, D. Rosolowski, W. Wojtasiak, M. Goralczyk, W. Gwarek *Warsaw University of Technology, Poland*	

M19.4	Human Micro-Doppler Signature Extraction in the Foliage-penetration Environment J. Zhang, T. Jin, Y. He, L. Qiu, Z. Zhou *National University of Defence Technology, Changsha, China*

ROOM C		13:15-14:55
M20. Space Technologies		
Session Chairs:	Marek Banaszkiewicz	*Polish Space Agency*
	Steffen Kuntz	*Airbus Defence and Space*
M20.1	CONSERT Bistatic Radar on ROSETTA (ESA) Cometary Mission W. Kofman[1,2] *[1]Space Research Center, Warsaw, Poland, [2]Ipag Cnrs/Ujf, Grenoble, France*	
M20.2	Silicon Integrated Circuits for Space Applications R. Piesiewicz *SIRC Sp. z o.o., Gdynia, Poland*	
M20.3	Microelectronics in Poland – From Accelerators to Space Technology M. Jankowski, A. Napieralski *Lodz University of Technology, Poland*	
M20.4	SAR Earth Observation Satellites – Heritage, Status Quo and Way Ahead – in Europe and Germany W. B. von Kader *Airbus Defence and Space, Immenstaad, Germany*	
M20.5	Technical Aspects of Future SAR Missions S. Kuntz *Airbus Defence and Space, Immenstaad, Germany*	

ROOM D		13:35-14:55
R3. Signal Processing I		
Session Chairs:	Birsen Yazici	*Rensselaer Polytechnic Institute*
	Adam Kawalec	*Military University of Technology*
R3.1	Two-Band Radar Extensions for Cognitive Operation T. Brenner, W. Dyszynski, L. Lamentowski, R. Mularzuk *PIT-RADWAR, Warsaw, Poland*	
R3.2	High Resolution Signal Processing Techniques for Millimeter Wave Short Range Surveillance Radar A. S. Turk, A. Kizilay, M. Orhan, A. Caliskan *Yildiz Technical University, Istanbul, Turkey*	
R3.3	Probabilistic Code Extractor for Low SNR SIF/IFF Mode A, C Respond P. Hubacek, J. Vesely *University of Defence, Brno, Czech Republic*	
R3.4	Geometric Barycenters of Time/Doppler Spectra for Radar Detection in Non-stationary Environments A. Le Brigant[1], F. Barbaresco[2], C. Culan[2] *[1]Thales Air Systems, Institut Mathematique de Bordeaux, [2]Thales Air Systems, Limours, France*	

ROOM E		13:35-14:55
R4. Systems and Applications I		
Session Chairs:	Christo Kabakchiev	*Sofia University*
	Maciej Smolarczyk	*PIT-RADWAR*
R4.1	An Approach to Discrimination of Hydrometeors with Similar Polarization Properties within the Resolution Volume Y. Averyanova, F. Yanovsky *National Aviation University, Kyiv, Ukraine*	
R4.2	Frequency Monitoring System for the Over-The-Horizon-Radar (OTHR) in Mid-latitude T. Thayaparan[1], K. Shimotakaharav[2] *[1]Department of National Defence, [2]Carleton University, Ottawa, Canada*	
R4.3	Multivariate Copula Approach for Polarimetric Classification in Weather Radar Applications F. J. Yanovsky, A. N. Rudiakova, R. B. Sinitsyn *National Aviation University, Kiev, Ukraine*	
R4.4	Safety&BIT on ATC Radar Processing T. Huber-Obst *Airbus DS Electronics and Border Security GmbH, Ulm, Germany*	

ROOM PIANO		13:15-14:55
M21. Electromagnetic Modeling of Resonant Structures		
Session Chairs:	Andrzej Karwowski	*Silesian University of Technology*
	Luca Perregrini	*University of Pavia*
M21.1	Study of Different Algorithms and Models for Trapping Effect Extraction A. Divay[1], M. Masmoudi[1], O. Latry[1], C. Duperrier[2], F. Temcamani[3] *[1]Groupe de Physique des Materiaux, University INSA de Rouen, [2]University of Cergy, ENSEA, [3]Quartz, ENSEA, Cergy-Pontoise, France*	
M21.2	Resonant Frequencies in Microstrip Structure with Omega Medium Substrate R. Lech, A. Kusiek, W. Marynowski, J. Mazur *Gdansk University of Technology, Poland*	
M21.3	Efficient Complex Root Finding Algorithm for Microwave and Optical Propagation Problems P. Kowalczyk *Gdansk University of Technology, Poland*	
M21.4	Scattering From a Conducting Cylinder Partially Buried in a Dielectric Half Space by a Decomposition Method A. Kizilay[1], U. Saynak[2] *[1] Yıldız Technical University, Istanbul, [2]TUBITAK (The Scientific and Technological Research Council of Turkey), Kocaeli, Turkey*	
M21.5	Effective Constitutive Parameters of Anisotropic Chiral Multilayered Media O. Ouchetto, B. Abou El Majd, S. Zaamoun *University Hassan II, Casablanca, Morocco*	

ROOM A		14:55 – 15:40
P3. Interactive Forum (MIKON + IRS)		
Session Chairs:	Daniel O'Hagan	*University of Cape Town*
	Waldemar Susek	*Military University of Technology*
P3.1(M)	FDTD Simulations on Disjoint Domains with the Use of Discrete Green's Function Diakoptics T. P. Stefanski, T. Dziubak *Gdansk University of Technology, Poland*	
P3.2(R)	Textural Processing Using Maximum Likelihood Estimation of Fractal Dimension by Independent and Dependent Samples A. Y. Parshin, Y. N. Parshin *Ryazan State Radioengineering University, Russian Federation*	

P3.3(R)	SDR-based LFM Signal Generator for Radar/SAR Systems A. Grabowski *Warsaw University of Technology, Poland*
P3.4(R)	Design of the Software Radar Signal Generator Using LabVIEW M. Czyzewski, A. Slowik, A. Rutkowski, A. Kawalec *Military University of Technology, Warsaw, Poland*
P3.5(R)	Two Receiving Channel Balanced RF FMCW FrontEnd for Radar Applications D. Gromek, M. Urbanski, P. Krysik, P. Dzwonkowski, P. Samczynski, A. Abramowicz, K. Kulpa *Warsaw University of Technology, Poland*
P3.6(R)	Carrier- and Doppler-tunable FPGA-based Active Reflector for Radar Calibration P. Roszkowski *Warsaw University of Technology, Poland*
P3.7(R)	Front-End Design for Ka Band mm-Wave Radar A. K. Keskin, M. D. Senturk, S. Demirel, A. Kizilay, A. S. Turk *Yildiz Technical University, Istanbul, Turkey*
P3.8(R)	Low-THz Overhead Power Cable Signatures B. Willetts, M. Gashinova, A. Stove, C. Constantinou, E. Hoare, E. Marchetti *University of Birmingham, UK*
P3.9(M)	Magnetization Dynamics of NiFe Film and Anisotropic Magneto-resistance Device: Comparison of Microwave Detection Methods S. Zietek, M. Cecot, W. Skowronski, T. Stobiecki *AGH University of Science and Technology, Krakow, Poland*
P3.10(R)	The Preliminary Survey of Ship Recognition Algorithms Using ISAR Images A. Kurowska *Warsaw University of Technology, Poland*
P3.11(M)	MTCA.4 RTM Module for Direct Sampling Based Applications M. Grzegrzolka[1], K. Czuba[1], I. Rutkowski[1], M. Hoffmann[2], U. Mavric[2], H. Schlarb[2] *[1]Warsaw University of Technology, Poland, [2]Deutsches Elektronen-Synchrotron, Hamburg, Germany*
P3.12(M)	Low Phase Noise 1.3 GHz Synthesiser for European XFEL Accelerator Master Oscillator S. Hanasz[1], L. Zembala[1], B. Gasowski[1], K. Czuba[1], H. C. Weddig[2] *[1]Warsaw University of Technology, Poland, [2]Deutsches Elektronen Synchrotron, Hamburg, Germany*

P3.13(M)	Excellence of Resistance Temperature Detector RTDs in Airborene Microwave Hurricane Observation R. A. Alsabah, A. Alsabbagh, I. Kostanic, J. Zec *Florida Institute of technology, Melbourne, United States*
P3.14(M)	Direct N-QAM Multiport Modulators Utilizing Butler Matrices' K. Staszek, S. Gruszczynski, K. Wincza AGH University of Science and Technology, Krakow, Poland
P3.15(M)	Broadband Feeding Network for Two Circularly Polarized Antennas with Inherent Transmitter-Receiver Isolation G. Jaworski[1], P. Gorski[2] *[1]Wroclaw University of Technology, Poland, [2]ViaSat Antenna Systems SA, Lausanne, Switzerland*
P3.16(M)	Signal Distribution Circuit for Planar Antenna Array for K-Band B. Stec, M. Czyzewski, A. Slowik *Military University of Technology, Warsaw, Poland*
P3.17(M)	Frequency Reconfigurable Antenna Based on Left-Handed Metamaterial H. Kimouche, H. Cheribi *Ecole Miltaire Polytechnique, Algiers, Algeria*
P3.18(M)	UWB Monopole Antenna Chipless RFID Tags Using 8-Bit Open Circuit Stub Resonators O. M. Haraz[1,2], M. A. Ashraf[2], S. A. Alshebili [2], M. R. AlShareef[3], H. M. Behairy[3] *[1]Assiut University, Egypt, [2]King Saud University, [3]King Abdulaziz City for Science and Tech., Riyadh, Saudi Arabia*
P3.19(M)	Modal Analysis of Planar Elliptical Resonator Deposited on Unshielded Dielectric Slab M. Pergol[1], W. Zieniutycz[2] *[1]PIT-RADWAR, Gdansk, Poland, [2]Gdansk University of Technology, Poland*
P3.20(M)	Reflector Modification of HPEM Generator Increasing E Field Strength M. Bugaj, R. Przesmycki, M. Wnuk, J. Bugaj *Military University of Technology, Warsaw, Poland*

ROOM B		15:40-17:00
M22. Passive Components		
Session Chairs:	Michal Mrozowski	*Gdansk University of Technology*
	Zbynek Raida	*Brno University of Technology*
M22.1	3D-Printed, Textile, and Paper-based Substrate Integrated Waveguide Components for the Internet of Things (*Invited*) M. Bozzi *University of Pavia, Italy*	
M22.2	Some Recent Developments of Millimeter-Wave RFIC Attenuators J. Bae, C. Nguyen *Texas A&M Universit, College Station, United States*	
M22.3	X- and Ka-band Matched Loads on Microwave Photonic Crystals D.A. Usanov[1,3], A.V. Skripal[1,3], D.V. Ponomarev[1,3], V.P. Meshanov[2,3], N.F. Popova[2,3], M.K. Merdanov[3,2] *[1]Saratov State University, [2]LLC , Saratov, [3]JSC , Moscow, Russian Federation*	

ROOM C		15:40-17:00
M23. Satellite Systems and Components		
Session Chairs:	C. van't Klooster	*Technical University of Eindhoven*
	Roman Kubacki	*Military University of Technology*
M23.1	An Old Satellite Antenna Measured on a New Test Facility at Eindhoven University of Technology C. van't Klooster, A. Tijhuis, B. Smolders *Technical University of Eindhoven, Netherlands*	
M23.2	Lightweight and Cost Efficient Space Qualified Patch Antenna K. Schraml[1], A. Narbudowicz[2,1], R. Wilke[1], D. Heberling[1] *[1]RWTH Aachen University, Germany, [2]Dublin Institute of Technology, Ireland*	
M23.3	The Communication and Spectrum Monitoring System of Smog-1 PocketQube Class Satellite L. Dudas, A. Gschwindt *Budapest University of Technology and Economics, Hungary*	
M23.4	VHF Right Angeled Planar Dipole Antenna Array For Microsat Application K.S. Mehul[1], G.S. Karthikeya[1], T. Thyagaraj[1,2], P. Akshar[1,2], V. Karthik[1,2] *[1]Dayananda Sagar College of Engineering, [2]BMS Institute of Technology and Management, Bangalore, India*	

ROOM D		15:40-17:00
R5. Passive Radar Applications		
Session Chairs:	Karl Frederik Olsen	*Norwegian Defence Research Establishment (FFI)*
	Tadeusz Brenner	*PIT-RADWAR*
R5.1	A Signal and Plot Simulator for Passive Bistatic Radar M. Zywek, M. Malanowski, M. K. Baczyk *Warsaw University of Technology, Poland*	
R5.2	Group Sparsity Techniques for Data Fusion of a passive MISO Radar Network M. Weiß *Fraunhofer FHR, Wachtberg, Germany*	
R5.3	On the Detection of Small UAV Using a GSM Passive Coherent Location System B. Knoedler, R. Zemmari *Fraunhofer FKIE, Wachtberg, Germany*	
R5.4	Accelerating Rocket Detection Using Passive Bistatic Radar K. I. Borowiec, M. Malanowski *Warsaw University of Technology, Poland*	

ROOM E		15:40-17:00
R6. Systems and Applications II		
Session Chairs:	Francois Le Chevalier	*TU Delft*
	Robert Szelenbaum	*PIT-RADWAR*
R6.1	Some Aspects of the Multistatic Radar Network Topology Optimization I. M. Ivashko, O. A. Krasnov, A. G. Yarovoy *Delft University of Technology, Netherlands*	
R6.2	Comparison of Target Detections from Active MSPSR System with Outputs of MLAT System P. Cabalkova, R. Plsek *ERA a.s., Pardubice, Czech Republic*	
R6.3	Dual-use Simultaneous Radar-Communication System Based on Single Photonics-Based Transceiver S. Melo[1], S. Pinna[1], A. Bogoni[1,2], F. Laghezza[2], F. Scotti[2], I. F. da Costa[3], D. Spadoti[3], A. Cerqueira[4], *[1]Scuola Superiore Sant'Anna, [2]CNIT, National University Consortium for Telecommunications, Pisa, Italy, [3]Federal University of Itajuba, [4]Inatel, National Institute of Telecommunications, Santa Rita do Sapucai, Brazil*	
R6.4	Concept for an Advanced Navigational Phased Array Radar N. Hansen[1], J. Mohncke[1], S. Radzijewski[1], A. F. Jacob[1], H. Mextorf[2] *[1]Technische Universitaet Hamburg-Harburg, Germany, [2]Raytheon Anschütz GmbH, Kiel, Germany*	

ROOM PIANO		15:40-17:00
M24. RF and THz Non-destructive Testing of Composite Materials		
Session Chairs:	Henning Heuer	*Technische Universität Dresden*
	Bartlomiej Salski	*Warsaw University of Technology*
M24.1	High Resolution Radio Frequency Inspection of Carbon Fiber Composites H. Heuer[2,1], M. Schulze[2], M. Pooch[2] [1]Technische Universität Dresden, Germany, [2]Fraunhofer IKTS, Dresden, Germany	
M24.2	Non-destructive Testing of Polyethylene Composite by Terahertz Radiation N. Palka[1], W. Ciurapinski[1], J. Wrobel[1], L. Jodlowski[1], M. Szustakowski[1], D. Miedzinska[2], R. Gielata[2], R. Beigang[3] *[1,2]Military University of Technology, Warsaw, Poland, [3]University of Kaiserslautern, Germany*	
M24.3	RF Inductive Non-Destructive Testing of Carbon Composites B. Salski[1], P. Kopyt[1], J. Bienias[2], P. Jakubczak[2] *[1]Warsaw University of Technology, [2]Lublin University of Technology, Poland*	
M24.4	Application of an Electromagnetic Sensor for Detection of Impact Damage in Aircraft Composites Z. Li, A. Haigh, C. Soutis, A. Gibson, R. Sloan *University of Manchester, Manchester, UK*	

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ROOM B		8:30-10:10
M25. Millimiter Wave Antennas		
Session Chairs:	Arne Jacob	*TU Hamburg-Harburg*
	Andrzej Kucharski	*Wroclaw University of Technology*
M25.1	Investigation of an Advanced Millimeter-Wave 94-GHz Phased Array for Communications and Sensing J. Lee, C. Huynh, J. Bae, D. Lee, C. Nguyen *Texas A&M Universit, College Station, United States*	
M25.2	Investigation of LTCC Leaky Wave Antenna Operated in mm-Wave Band P. Piasecki[1], Y. Yashchyshyn[1], A. Denisov[2] *[1]Warsaw University of Technology, Poland, [2]State Res. Center of Superconductive Radioelectron, Kiev, Ukraine*	
M25.3	mm-Wave Dielectric Resonator Antenna (DRA) with Wide Bandwidth for the Future Wireless Networks N. Ojaroudiparchin, M. Shen, G. F. Pedersen *Aalborg University, Denmark*	
M25.4	Design of Dielectric Lens Loaded Double Ridged Horn Antenna for Millimetre Wave Application S. Demirel, A. Caliskan, M. T. Mersin, A. S. Turk, M. A. Belen, P. Mahouti *Yıldız Technical University, Istanbul, Turkey*	
M25.5	Ka-Band SIW-fed Slot Array Antenna H. Sarbandi Farahani, B. Rezaee, R. Sadeghzadeh, K.N. Toosi *University of Technology, Tehran, Iran*	

ROOM C		8:30-10:10
M26. GaN Technology in Europe		
Session Chairs:	Paolo Colantonio	*University of Roma Tor Vergata*
	Massimo Comparini	*Telespazio*
M26.1	High Efficiency and Low Distortion GaN MMIC Power Amplifier for Ghz Applications R. Giofre, P. Colantonio, F. Giannini *University of Roma Tor Vergata, Italy*	
M26.2	GaN Technology Impact on Future Space Applications: From Devices to Architectures M. C. Comparini *Telespazio, Roma, Italy*	
M26.3	Development of Solid State Power Amplifier on GaN Technology for Galileo Satellite System R. Giofre[1], P. Colantonio[1], F. Giannini[1], F. de Arriba[2], L. Gonzalez[2], L. Cabria[2] *[1]University of Roma Tor Vergata, Italy, [2]TTI (Information and Communication Technologies), Santander, Spain*	
M26.4	Reliability of Gallium Nitride Microwave Transistors: a Framework for the Evaluation of Failure Mechanisms and Instabilities, from Accelerated Testing to Failure Analysis and Process Improvement E. Zanoni, G. Meneghesso, M. Meneghini, A. Stocco, S. Dalcanale, F. Rampazzo, I. Rossetto, C. De Santi *University of Padova, Italy*	
M26.5	A GaN MMIC Chipset Suitable for Integration In Future X-Band Spaceborne Radar T/R Module Frontends S. D'Angelo, A. Biondi, F. Scappaviva, D. Resca, V. Monaco MEC SRL, Bologna, Italy	
M26.6	The Finmeccanica Perspective on the Application of GAN Technology in Future SAR And Radar Systems C. Lanzieri[1], A. Pantellini[1], L. Marescialli[1], M. Molina[1], P. Romanini[1], W. Ciccognani[2], S. Colangeli[2], E. Limiti[2] *[1]Finmeccanica – S.p.a, [2]MECSA, Rome, Italy*	

ROOM D		8:30-10:10
R7. Passive Radars		
Session Chairs:	Heiner Kuschel	*Fraunhofer FHR*
	Mateusz Malanowski	*Warsaw University of Technology*
R7.1	On Angle Estimation in GSM Passive Coherent Location Systems R. Zemmari, B. Knoedler, U. Nickel *Fraunhofer FKIE, Wachtberg, Germany*	
R7.2	Strategies for Target Localization in Passive Bistatic Radar G. Krawczyk *Warsaw University of Technology, Poland*	
R7.3	Quad Channel DVB-T Based Passive Radar T. Peto, R. Seller *Budapest University of Technology and Economics, Hungary*	
R7.4	SVD Based GSM Reference Channel Equalization for Passive Radiolocation M. Wielgo, P. Krysik, J. Misiurewicz *Warsaw University of Technology, Poland*	
R7.5	Multipath Clutter Cancellation and Tracking Algorithms for Passive Radars A. Baruzzi, C. Schwark, G. Bournaka, D. Cristallini, H. Kuschel *Fraunhofer Institute FHR, Wachtberg, Germany*	

ROOM E		8:30-10:10
R8. Focussed Session: Maritime Radar		
Session Chairs:	Anna Dzvonkovskaya	*Helzel Messtechnik GmBH*
	Andrzej Stateczny	*Marine Technology Ltd.*
R8.1	Radar Water Level Sensors for Full Implementation of the River Information Services of Border and Lower Section of the Oder in Poland A. Stateczny *Marine Technology Ltd., Szczecin, Poland*	
R8.2	Hybrid Approach on Generating Correlated Sea Clutter for Maritime Radar Test S. Heuel, A. Reil, C. van Driesten *Rohde & Schwarz, Munich, Germany*	
R8.3	Application Schema for Radar Information on Ship W. Kazimierski *Maritime University of Szczecin, Poland*	
R8.4	Numerical Simulations of Electromagntic Signature of Sea Surface in Presence of Pollutants H. Ghanmi, A. Khenchaf, F. Comblet *Lab-STICC UMR CNRS 6285, Brest, France*	
R8.5	North Sea Millimeterwave Propagation Experiment A. Danklmayer[1], J. Foerster[2], P. Colditz[1], G. Biegel[1], T. Brehm[1] *[1]Fraunhofer FHR, Wachtberg, [2]Technical Center for Ships and Naval Weapons, Kiel, Germany*	

ROOM PIANO		8:30-10:10
M27. THz Spectroscopy: Components and Applications I		
Session Chairs:	Pawel Kopyt	*Warsaw University of Technology*
	Fedir Sizov	*Institute of Semiconductor Physics Ukraine*
M27.1	Narrow-gap MCT as THz Detector F. Sizov[1], V. Dobrovolski[1], Z. Tsybrii[1], V. Zabudsky[1], S. Dvoretskii[2], N. Mikhailov[2], *[1]V.E. Lashkaryov Institute of Semiconductor Physics, Kyiv, Ukraine, [2]A.V. Rzhanov Institute of Semiconductor Physics, Novosibirsk, Russian Federation*	
M27.2	THz Lasers Based on Narrow-Gap Semiconductors V.I. Gavrilenko[1,2], S.V. Morozov[1,2], V.V. Rumyantsev[1,2], L.S. Bovkun[1,2], A.M. Kadykov[1,2], K.V. Maremyanin[1,2], K. Umbertalieva[3], E.G. Chizhevskiy[3], I.I. Zasavitskiy[3], N.N. Mikhailov[4], S.A. Dvoretskiy[4] *[1]Institute for Physics of Microstructures of Russian Academy of Sciences, Nizhniy Novgorod, [2]Lobachevsky State University of Nizhny Novgorod, [3]Lebedev Physical Institute, Russian Academy of Sciences, Moscow, [4]A.V.Rzhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academy of Science, Novosibirsk, Russian Federation*	

M27.3	Effect of the Schottky-Barrier Height of the Gate on Detection Characteristics of the Field Effect Transistor in the Microwave and Terahertz Ranges V. I. Shashkin, S. A. Korolyov, N. V. Vostokov *Institute for Physics of Microstructures RAS, Nizhny Novgorod, Russian Federation*
M27.4	GaN/AlGaN Lateral Schottky Barrier Diodes for High Frequency Applications G. Cywinski[1], K. Szkudlarek[1], P. Kruszewski[1], G. Muziol[1], I. Yahniuk[1], S. Yatsunenko[1], M. Siekacz[1], C. Skierbiszewski[1], S. Rumyantsev[2], W. Knap[1,3] *[1]Institute of High Pressure Physics PAS, Warsaw, Poland, [2]Ioffe Institute, Russian Academy of Sciences, St. Petersburg, Russian Federation, [3]Laboratory Charles Coulomb UMR 5650 UM2 & CNRS, Montpellier, France*
M27.5	Numerical Modeling of Transport Properties and Noises in Semi-Metal Hgcdte Quantum Well Channel for THz Hot-Electron Bolometer E. O. Melezhik, J. V. Gumenjuk-Sichevska, F. F. Sizov, *V. E. Lashkaryov Institute of Semiconductor Physics NAS of Ukraine, Kyiv, Ukraine*

ROOM A		10:10 – 10:55
P4. Interactive Forum (MIKON + IRS)		
Session Chairs:	Manuel Rosa Zurera	*Universidad de Alcala*
	Arkadiusz Lewandowski	*Warsaw University of Technology*
P4.1(R)	Demonstrator of the SDR-based Multistatic System For Localizing Different Sources of Emissions K. P. Klincewicz *Warsaw University of Technology, Poland*	
P4.2(R)	Using of Global Navigation Satellite System Radiation for Solving Problem of Radiolocation G. Laush[1], V. I. Lutsenko[2], I. V. Lutsenko[2], A. X. Nguyen[3] *[1]LLC "Navis-Ukraine, Smila, [2]Usikov Institute of Radiophysics and Electronics of National Academy of Sciences of Ukraine, Ukraine, [3]Institute of Geophysics (IGP) Vietnam Academy of Science and Technology(VAST), Hanoi, Viet Nam*	
P4.3(R)	Satellite-based Forward Scatter Passive Radar M. Radmard[1], S. Bayat[1], A. Farina[2], S. Hajsadeghian[3], M. M. Nayebi[1] *[1]Sharif University of Technology, Tehran,[3]Isfahan University of Technology, Isfahan, Iran*	
P4.4(R)	Optimal Sensor Configuration for Two Dimensional Source Localization Based on TDOA/FDOA Measurements M. Hamdollahzadeh, S. Adelipour, F. Behnia Sharif University of Technology, Tehran, Iran	

P4.5(R)	ISAR Imaging Based on the Empirical Mode Decomposition Time-Frequency Representation O. Couderc, J. C. Cexus, F. Comblet, A. Toumi *ENSTA Bretagne, 2, rue Francois Verny, France*
P4.6(R)	Fast Time-Domain Focusing For Low Frequency UWB Circular SAR Data L. Chen, D. An, X. Huang *NUDT, Changsha, China*
P4.7(R)	Research on Resolution of Bistatic Forward-looking SAR Based on Spatial Wavenumber of the Point Target D. Feng, D. An, X. Huang *NUDT, Changsha, China*
P4.8(R)	Analysis of the Objects Images on the Sea Using Dempster-Shafer Theory K. Bobkowska *Gdansk University of Technology, Poland*
P4.9(R)	Periodic Non-uniform Reconstruction of FMCW SAR Using Fractional Fourer Transform Q. Xin, Z. Wang, J. Wan, Q. Zou *College of Electronic Science and Engineering, Changsha, China*
P4.10(R)	Real-time Mode Algorithm for the Front-Side-Looking SAR K. Semenova *National Aviation University, Kyiv, Ukraine*
P4.11(M)	2D Photonic Crystal Filter with Dewdrop-Petal Structure A. V. Vishnevsky *National Aviation University, Kiev, Ukraine*
P4.12(M)	Compensation of Dissipations in Semiconductor Metamaterials A. A. Girich[1], O. V. Shramkova[2], S. I. Tarapov[1] *[1]Institute of Radiophysics and Electronics NAS of Ukraine, Kharkov, Ukraine, [2]University of Crete, Heraklion, Greece*
P4.13(M)	Terahertz Detection by AlGaN/GaN HEMTs at High Intensity N. Dyakonova[1], D. Coquillat[1], P. Faltermeier[2], D. But[1], K. Szkudlarek[3], P. Olbrich[2], F. Teppe[1], G. Cywinski[3], W. Knap[1], S. Ganichev[2] *[1]CNRS–University Montpellier, France, [2]University of Regensburg, Germany, [3]Institute of High Pressure Physics, Poland*
P4.14(M)	Affordable Sub-THz Band-Pass Mesh Filters P. Kopyt[1], B. Salski[1], P. Zagrajek[2], J. Marczewski[3] *[1]Warsaw University of Technology, [2]Military University of Technology, [3]Institute of Electron Technology, Warsaw, Poland*

P4.15(M)	**Real-time Nondestructive Imaging with THz Waves** M. Triki[1], A. Duhant[1], C. Poulin[1], B. Moulin[1], C. Archier[1], T. Antonini[1], F. Teppe[2], W. Knap[2] *[1]T-Waves Technologies, [2]Laboratoire Charles Coulomb UMR 5221 CNRS-UM2, Montpellier, France*
P4.16(M)	**GaN/AlGaN Based Transistors for Terahertz Emitters and Detectors** G. Cywinski[1], K. Szkudlarek[1], I. Yahniuk[1], S. Yatsunenko[1], W. Knap[1,2], D. Yavorskiy[3], K. Karpierz[3], J. Lusakowski[3], D. Coquillat[2], N. Dyakonova[2], K. Dybko[4], M. Siekacz[1], C. Skierbiszewski[1] *[1]Institute of High Pressure Physics PAS, Warsaw, Poland, [2]Laboratory Charles Coulomb UMR 5650 UM2 & CNRS, Montpellier, France, [3]Institute of Experimental Physics University of Warsaw, [4]Institute of Physics PAS, Warsaw, Poland*
P4.17(M)	**A Synthesis Approach for Bandpass Filters with Arbitrary Transmission Zeros. Aspect of Solution by Linearization of Immittances** M. B. Zaradny *Wroclaw University of Technology, Poland*
P4.18(M)	**Magnetic Dynamics of Periodic and Quasiperiodic Arrays of NiFe Nanostripes** Filip Lisiecki[1], Piotr Kuswik[1], Hubert Glowinski[1], Michal Matczaka[2], Justyna Rychly[3], Maciej Krawczyk[3], Piotr Mazalski[4], Andrzej Maziewski[4], Feliks Stobiecki[1,2], Janusz Dubowik[1] *[1]Institute of Molecular Physics, Polish Academy of Sciences, [2]NanoBioMedical Centre, [3]Faculty of Physics, Adam Mickiewicz University, Poznan, [4]Faculty of Physics, University of Bialystok*
P4.19(R)	**Resource Management in Closely Spaced Multiposition Radar Systems** V. Vovk[1], I. Prokopenko[1], S. Stavytskyi[2], V. Medvediev[2], B. Stavytskyi[3] *[1]National Aviation University, [2]Central Research Institute of Navigation and Control, [3]National Technical University of Ukraine "Kyiv Polytechnic Institute", Kyiv, Ukraine*
P4.20(M)	**Conformal Antennas with Coaxial Probe Feed** M. Bugaj, R. Przesmycki, M. Wnuk, J. Bugaj *Military University of Technology, Warsaw, Poland*
P4.21(R)	**Quasi Horn Antenna Array for Ku Band Monopulse Radiation** A. K. Keskin[1], A. S. Turk[1], M. A. Tulum[2] *[1]Yildiz Technical University, [2]Neta Electronics Inc., Istanbul, Turkey*
P4.22(R)	**Search of Binary Codes Compressed to Several Subpulses Using Genetic Algorithm** H. Takase, S. Hoshino, M. Shinriki *Nippon Institute of Technology, Miyashiro, Japan*

ROOM B		10:55-12:15
M28. Antenna Measurements		
Session Chairs:	Filiz Gunes	*Yildiz Technical University*
	Krzysztof Wincza	*AGH University of Science and Technology*
M28.1	Extending the Antenna Polygon for L-band V. Zavodny *Eldis Pardubice L.T.D., Czech Republic*	
M28.2	The Investigation of FM Array Antenna Radiation Pattern Simulated in a Free Space And in a Semi-Anechoic Chamber P. Piasecki[1,2] *[1]PIT-RADWAR , [2]Warsaw University of Technology, Warsaw, Poland*	
M28.3	On Dual Polarised Probes for Near Field Antenna Measurements C. van't Klooster, M. Hofman *Wroclaw University of Technology, Poland*	
M28.4	Modeling of Paraboloidal Reflector Antenna with Displaced Radiators I. Prudyus, L. Lazko, D. Mymrikov *Lviv Polytechnic National University, Ukraine*	

ROOM C		10:55-12:15
M29. Filter and CAD for Passive Components		
Session Chairs:	Dimitri Kholodniak	*St. Petersburg Electrotechnical University*
	Jerzy Mazur	*Gdansk University of Technology*
M29.1	Evaluation of a Multiphysical RF MEMS Oscillator Based on LTE Receiver Performance Requirements V. A. Silva Cortes[1], D. Podoskin[2], M. Fischer[2], S. Gropp[2], M. Hein[2], J. Mueller[2], M. Hoffmann[2], R. Weigel[1], G. Fischer[1], A. Hagelauer[1] *[1]University of Erlangen-Nuremberg, [2]University of Ilmenau, Germany*	
M29.2	Fast and Precise Geometry Scaling of Miniaturized Microstrip Couplers with Unequal Power Split S. Koziel, A. Bekasiewicz *Reykjavik University, Iceland*	
M29.3	Coupling Matrix Synthesis for Lossy Filters by Optimization Using Frechet Distance A. Szwaba, T. Kacmajor, J. J. Michalski *SpaceForest, Gdynia, Poland*	

M29.4	An Electronically Tunable Lumped-element Bandpass Filter with Continuous Tuning of Center Frequency and Bandwidth A. Baskakova, V. Turgaliev, D. Kholodnyak *Microwave Microelectronics Laboratory, St. Petersburg Electrotechnical University LETI*

ROOM D		10:55-12:35
R9. Signal Processing II		
Session Chairs:	Chris Baker	*Ohio State University*
	Ewa Swiercz	*Bialystok University of Technology*
R9.1	Application of CUDA Computing Technology in Radar Digital Signal Processing T. Rogala, A. Kawalec, M. Szugajew *Military University of Technology, Warsaw, Poland*	
R9.2	Real Time Scan Conversion Implementation for High Resolution Radars D. L. Gomez Pinzon[1,2], J. M. Pena Espartero[2] *[1]Codaltec, Bogota D.C, Colombia, [2]Advanced Radar Technology, Madrid, Spain*	
R9.3	MIMO UWB Radar for Moving Target Tracking J. Matuzas, B. Levitas, I. Naidionova, M. Drozdov, S. Jefremov *Geozondas JSC, Vilnius, Lithuania*	
R9.4	Block Adaptive Compressive Sensing for Distributed MIMO Radar in Clutter Environment A. Abtahi1,2, S. Mohajer[1,2], F. Marvasti[1,2] *[1]Advanced Communications Research Institute (ACRI),* *[2]Sharif University of Technology, Tehran, Iran*	
R9.5	Numerical Analysis of Signal Distribution Propagation in Radar Detection Procedures K. Jedrzejewski *Warsaw University of Technology, Warsaw, Poland*	

ROOM E		10:55-12:35
R10. SAR/GMTI		
Session Chairs:	Matthias Weiss	*Fraunhofer FHR*
	Piotr Kaniewski	*Military University of Technology*
R10.1	Layover Artifacts in Bistatic SAR Images L. Wang, B. Yazici *Rensselaer Polytechnic Institute, Troy, United States*	
R10.2	Frame-Based SAR Processing and Automatic Moving Targets Parameters Extraction I. M. Gorovyi, D. S. Sharapov, D. M. Vavriv *Institute of Radio Astronomy, Kharkiv, Ukraine*	
R10.3	Two-Antenna SAR/ATI with Multiple Carrier Frequencies for Radial Velocity Estimation of Moving Targets X. Kang, Y. Zhang, W. Zhai, J. Yang *National Space Science Center, Chinese Academy of Sciences, Beijing, China*	
R10.4	Performance Analysis of HRWS/GMTI for Space-Based SAR Using Sparse Arrays L. Rousseau[1], C. Gierull[2], J. Chouinard[1] *[1]Universite Laval, Quebec, [2]Defence Research & Development Canada – Ottawa, Canada*	
R10.5	Moving Target Imaging Using Dual-Channel High Resolution 35 GHz SAR Radar J. Drozdowicz *Warsaw University of Technology, Poland*	

ROOM PIANO		10:55-12:15
M30. Spintronics		
Session Chairs:	Shingo Tamaru	*National Institute of Advanced Industrial, Japan*
	Tomasz Stobiecki	*AGH University of Science and Technology*
M30.1	Recent Progress Toward the Use of Spin Torque Oscillators in Real Electronics Systems *(Invited)* S. Tamaru *Spintronics Research Center, National Institute of Advanced Industrial, Japan*	
M30.2	Nonreciprocal Properties of GHz Frequency Surface Spin Waves in Nanopatterned Ferromagnetic Films *(Invited)* M. Krawczyk *Adam Mickiewicz University in Poznan, Poland*	

M30.3	Microwave Detection Based on Magnetoresistance Effect in Spintronic Devices W. Skowronski[1], S. Zietek[1], M. Cecot[1], T. Stobiecki[1], J. Wrona[2], K. Yakushiji[3], T. Nozaki[3], H. Kubota[3], S. Yuasa[3] *[1]AGH University of Science and Technology, Krakow, Poland, [2]Singulus Technologies AG, Kahl am Main, Germany, [3]National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan*
M30.4	Damping in Finmet Films Capped by Platinium H. Glowinski[1], I. Goscianska[2], A. Krysztofik[2], J. Barnas[2], T. Stobiecki[3], J. Dubowik[1] *[1]Institute of Molecular Physics, Polish Academy of Sciences, [2]A. Mickiewicz University, Poznan, [3]AGH University of Science and Technology, Krakow, Poland*

ROOM B		13:15-14:55
M31. Antennas		
Session Chairs:	Pawel Kabacik	*Wroclaw University of Technology*
	Wojciech Krzysztofik	*Wroclaw University of Technology*
M31.1	Polarization Reconfigurable HMSIW U-Slot Antenna P. Hubka, J. Lacik *Brno University of Technology, Czech Republic*	
M31.2	Novel Structure and Design of Compact UWB Slot Antenna A. Bekasiewicz[1,2], S. Koziel[1,2] *[1]Reykjavik University, Iceland, [2]Gdansk University of Technology, Poland*	
M31.3	Waveguide Monopulse Summing-Differential System E. Sedek[1], A. Jeziorsk[2], R. Slomski[1] *[1]PIT-RADWAR, [2]ATSA, Warsaw, Poland*	
M31.4	Microstrip Dual Band Millimeter-wave Antenna Array for UAV Applications S. S. Siddiq[1], G. S. Karthikeya[1], T. Thyagaraj[1,2], A. Narayan[1] *[1]Dayananda Sagar College of Engineering, [2]BMS Institute of Technology and Management, Bangalore, India*	
M31.5	Fast Geometry Scaling of UWB Band-Notch Antennas S. Koziel[1,2], A. Bekasiewicz[2] *[1]Reykjavik University, Iceland, [2]Gdansk University of Technology, Poland*	

ROOM C		13:15-14:55
M32. Filters and Diplexers		
Session Chairs:	Yuriy Prokopenko	*National Technical University of Ukraine*
	Jerzy Michalski	*SpaceForest, Poland*
M32.1	Integrated Microstrip Diplexers for Radio over Fiber A. Nagy, T. Cseh, Z. Szalay, T. Berceli *Budapest University of Technology and Economics, Hungary*	
M32.2	Narrowband Microstrip HTS Filter A. Abramowicz[1], P. Gierlowski[2], M. Jaworski[2] *[1]Warsaw University of Technology, [2]IF PAN, Warsaw, Poland*	
M32.3	Cascaded Loops Directional Filter with Transmission Zeroes for Multiplexing Applications J. Sorocki, I. Piekarz, S. Gruszczynski, K. Wincza *AGH University of Science and Technology, Krakow, Poland*	
M32.4	Compact Slow-Wave Millimeter-Wave Bandpass Filter (BPF) Using Open-Loop Resonator H. N. Shaman[1], W. A. Alomar[1], A. O. AlAmoudi[1], S. K. Almorqi[1], S. A. Alshebeili[2] *[1]King Abdulaziz City for Science and Technology (KACST), [2]King Saud University, Riyadh, Saudi Arabia*	
M32.5	Compact Ultra-wideband (UWB) Bandpass Filter with Wideband Harmonic Suppression H. N. Shaman[1], A. M. Almughamis[2], A. M. Alamro[2], Y. S. Alharthi[2] *[1]King Abdulaziz City for Science and Technology (KACST), [2]King Saud University, Riyadh, Saudi Arabia*	

ROOM D		13:35-14:55
R11. Signal Processing III		
Session Chairs:	Dusan Kocur	*Technical University of Kosice*
	Miroslaw Sankowski	*PIT-RADWAR*
R11.1	Application of the Reassignment of Time-Frequency Distributions to Doppler Radar Tomography Imaging of a Rotating Multi-Point Object E. Swiercz *Bialystok University of Technology, Poland*	
R11.2	A Novel OFDM-MIMO Radar with Non-equidistant Subcarrier Interleaving and Compressed Sensing G. Hakobyan[1], B. Yang[2] *[1]Robert Bosch GmbH, Renningen, [2]University of Stuttgart, Germany*	

R11.3	Compressed Sensing based Range Detection and Doppler Estimation for Portable Surveillance Radar C. Vipparla, S. N. Merchant *Indian Institute of Technology, Mumbai, India*
R11.4	Doppler Spectrum Segmentation of Radar Sea Clutter by Mean-Shift and Information Geometry Metric F. Barbaresco[1], T. Forget[1], A. Jesus[2], E. Chevallier[2] *[1]Thales Air Systems, Limours, [2]Mines ParisTech, Fontainebleau, France*

ROOM E		13:35-14:55
R12. Waveform Design I		
Session Chairs:	Jiri Vesely	*University of Defence, Czech Republic*
	Tom Lukowski	*Defence Research and Development Canada*
R12.1	Cost Efficient Frequency Hopping Radar Waveform for Range and Doppler Estimation B. Nuss, J. Fink, F. Jondral *Karlsruhe Institute of Technology, Germany*	
R12.2	Power Efficiency of High Dynamic Range Noise Waveform J. S. Kulpa, A. Kurowska *Warsaw University of Technology, Poland*	
R12.3	Efficient Optimization of the Ambiguity Functions of Multi-Static Radar Waveforms F. Arlery[1,2], R. Kassab[1], U. Tan[1], F. Lehmann[2] *[1]Thales Air Systems, Limours, [2]Telecom SudParis, Evry, France*	
R12.4	Doppler Compensation for Binary Phase-Coded Radar Signals in Presence of Noise Jamming Z. Matousek, J. Ochodnicky, M. Babjak, J. Puttera *Armed Forces Academy of gen. M.R.Stefanik, Liptovsky Mikulas, Slovak Republic*	

ROOM PIANO		13:15-14:55
M33. THz Spectroscopy: Components and Applications II		
Session Chairs:	Wojciech Knap	*CNRS–Universityy Montpellier*
	Vladimir Vaks	*Institute for Physics of Microstructures*
M33.1	Compact Room Temperature Terahertz Imaging: Towards On–Chip Integration G. Valusis, L. Minkevicius, I. Kasalynas, R. Venckevicius, D. Seliuta, V. Tamosiunas, G. Raciukaitis, B. Voisiat *Center for Physical Sciences and Technology, Vilnius, Lithuania*	
M33.2	Substrate Optimization for a Planar Antenna of Terahertz Si Field Effect Transistor Detectors D. But[1], D. Coquillat[1], N. Dyakonova[1], F. Teppe[1], S. Ruffenach[1], W. Knap[1], P. Kopyt[2], J. Marczewski[3] *[1]Laboratoire Charles Coulomb, Montpellier, France, [2]Institute of Radioelectronics, [3]Institute of Electron Technology, Warsaw, Poland*	
M33.3	Terahertz Imaging by Field Effect Transistors W. Knap[1], D. But[1], D. Coquillat[1], N. Dyakonova[1], F. Teppe[1], M. Sypek[2], J. Suszek[2], G. Cywinski[3], K. Szkudlarek[3], I. Yahniuk[3], S. Yatsunenko[3] *[1]Montpellier University and CNRS, France, [2]Warsaw University of Technology, [3]Polish Academy of Sciences, Poland*	
M33.4	Diffractive Optics for GaN Terahertz Detectors Arrays J. Suszek[1], M. Sypek[1], A. Siemion[1], A. Nowakowska-Siwinska[3], P. Zagrajek[2], K. Szkudlarek[4], G. Cywinski[4], I. Yahniuk[4], S. Yatsunenko[4], D. But[5,6], D. Coquillat[5], W. Knap[4,5] *[1]Warsaw University of Technology, [2]Military University of Technology, [3]TopGaN Ltd, [4]Institute of High Pressure Physics of Polish Academy of Sciences, Warsaw, Poland, [5]Montpellier University &CNRS, France, [6]NAN Kiev, Kiev, Ukraine*	
M33.5	THz Analyzers for Breath Research V. L. Vaks[1,2], E. G. Domracheva[1,2], M. B. Chernyaeva[1,2] *[1]Institute for Physics of Microstructures, [2]Lobachevsky University, Nizhny Novgorod, Russian Federation*	

ROOM A		14:55 – 15:40
P5. Interactive Forum (IRS)		
Session Chairs:	Rafal Lech	*Gdansk University of Technology*
	Oleg Drobakhin	*Oles Honchar Dnipropetrovsk National University*
P5.1	PC Based Real-Time Radar Environment Simulation M. Bantle, G. Schumacher *Airbus DS Electronics and Border Security GmbH, Ulm, Germany*	
P5.2	Three Dimensional Electromagnetic Model Guided Scattering Center Extraction C. Ma, G. Wen, J. Zhong, X. Yang, B. Ding *National University of Defence Technology, Changsha, China*	
P5.3	Range Sidelobe Suppression Based on Gold Sequence P. Qiu, Z. Wang, P. Cheng *College of Electronic Science and Engineering, Changsha, China*	
P5.4	Cross-Pol InSAR Coherence Degradation due to Wave Penetration into Layered, Anisotropic Media K. K. Sainath[1], F. L. Teixeira[1], S. Hensley[2] *[1]The Ohio State University ElectroScience Laboratory, Columbus, [2]California Institute of Technology, Pasadena, USA*	
P5.5	Waveform Generation Employing Iterative CORDIC Algorithm Method M. Gaurav, A. Dambal *DRDO, Bangalore, India*	
P5.6	Analytical Coupling Simulation on Radar Targets R. Diewald *Hochschule Trier, Germany*	
P5.7	A Method of Determining the Basic Belief Assignment for Combined Primary and Secondary Surveillance Radars Based on Dezert-Smarandache Theory T. Pietkiewicz, A. Kawalec *Military University of Technology, Warsaw, Poland*	
P5.8	The Use of Non-Gaussian Character of Echo Signal Distribution in Moving Target Detection Systems Prokopenko[1], V. Vovk[1,2], K. Prokopenko[1], N. Babanska[2] *[1]National Aviation University, [2]JSC "Ukrspetstechnika, Kyiv, Ukraine*	
P5.9	Multi-Radar Multi-Target Tracking Algorithm for Maritime Surveillance at OTH Distances D. Nikolic[1], Z. Popovic[1], M. Borenovic[1], N. Stojkovic[1], V. Orlic[1], A. Dzvonkovskaya[2], B. M. Todorovic[1] *[1]Vlatacom Institute, Belgrade, Yugoslavia, [2]Helzel Messtechnik GmbH, Kaltenkirhen, Germany*	

P5.10	**Multi-Target Tracking Scheme Using a Track Management Table for Automotive Radar Systems** E. Hyun, J. Lee *Advanced Radar Technology (ART) Lab, Daegu, Republic of Korea*
P5.11	**Binomial Splitting Gaussian Mixture Implementation of the Unscented Kalman Probability Hypothesis Density Filter** P. Jing, S. Xu, R. Tu, Z. Chen *National University of Defence Technology, Changsha, China*
P5.12	**Detecting Small Moving Underwater Objects Using Scanning Sonar in Waterside Surveillance and Complex Security Solutions** N. Wawrzyniak, G. Zaniewicz *Maritime University of Szczecin, Poland*
P5.13	**Informational Reliability of Radar System Operator** O. Kozhokhina, L. Blahaia, S. Rudas, O. Alexeiev *National aviation university, Kyiv, Ukraine*
P5.14	**Integration of the Ship Based Centimeter and Millimeter Wave Band Radars** V. I. Lutsenko[1], I. V. Lutsenko[1], I. V. Popov[1], A. X. Nguyen[2] *[1]Usikov Institute of Radiophysics and Electronics of National Academy of Sciences of Ukraine, Kharkov, Ukraine, [2]Institute of Geophysics, Vietnamese Academy of Science and Technology, Hanoi, Viet Nam*
P5.15	**Cartographic Aspects of Radar Information Integration in Mobile Navigation System For Inland Waters** W. Kazimierski[1], I. Bodus-Olkowska[2], D. Harasymczuk[1] *[1]Marine Technology Ltd., [2]Maritime University of Szczecin, Poland*
P5.16	**Location Determination of Radar Sensors by Using LIDAR data** J. Lubczonek[1,2] *[1]Maritime University of Szczecin, [2]Marine Technology Ltd., Szczecin, Poland*
P5.17	**Use of Different CHAFF Materials During Electro Magnetic Jamming Exercise** Zak, M. Vach *Czech University of Life Sciences, Prague, Czech Republic*
P5.18	**Comparison of Selected Clustering Algorithms of Data Obtained by Interferometric Methods Using Artificial Neural Networks** Wlodarczyk-Sielicka[1], J. Lubczonek[1], A. Stateczny[2] *[1]Maritime University of Szczecin, [2]Marine Technology Ltd., Szczecin, Poland*
P5.19	**Kurtosis Based Approach for Detection of Targets in Noise** Schmidt[1], C. Ruegheimer[1], F. Particke[1], T. Mahr[1], H. Appel[2], H. Koelle[2] *[1] Technische Hochschule Nuernberg Georg Simon Ohm, [2]Airbus DS Electronics and Border Security GmbH, Ulm, Germany*

ROOM B/C		15:40-17:00
MIKON PLENARY SESSION – CLOSING		
Session Chairs:	Slawomir Gruszczynski	*AGH University of Science and Technology*
	Robert Weigel	*Institute for Electronics Engineering, Erlangen*
Keynote Presentations:		
A New Era for Microwave Imaging Systems Sherif Sayed Ahmed *Rohde & Schwarz*		
Design of Millimeterwave Multifunction Integrated Circuits for Data Communication and Remote Sensing Applications Herbert Zirath *Chalmers University of Technology*		
Closing Ceremony		
Wolfgang Heinrich	*European Microwave Association*	*President of the European Microwave Association*
Krzysztof Wincza	*MIKON TPC Chair*	*Winners of the Young Authors Contest*
Slawomir Gruszczynski	*MIKON Chair*	*MIKON 2016 Closing Remarks*
Krzysztof Kulpa/ Jozef Modelski	*MIKON2018/MRW2018 Chairs*	*Invitation to the MRW2018*

ROOM D		15:40-17:00
R13. ISAR		
Session Chairs:	Stephane Kemkemian	*Thales Airborne Systems*
	Jacek Misiurewicz	*Warsaw University of Technology*
R13.1	**ISAR Imaging of Non-Cooperative Targets via Dual Band Photonics-Based Radar System** F. Laghezza[1], F. Scotti[1], D. Onori[2,1], A. Bogoni[2,1] *[1]Inter-university National Consortium for Telecommunications , [2]Scuola Superiore Sant'Anna, Pisa, Italy*	
R13.2	**High Resolution Inverse Synthetic Aperture Radar Demonstrator utilizing low-Teraherz Band** P. Dzwonkowski *Warsaw University of Technology, Poland*	
R13.3	**High Resolution Interferometric Radar Imaging of a Moving Train** W. Zhai, Y. Zhang, X. Shi, Q. Yang *National Space Science Center, Chinese Academy of Science, Beijing, China*	
R13.4	**Numerical Study of Co-Polarized InSAR Phase Bias in Remote Sensing of Layered Media** K. K. Sainath[1], F. L. Teixeira[1], S. Hensley[2] *[1]The Ohio State University ElectroScience Laboratory, Columbus, [2]California Institute of Technology, Pasadena, USA*	

ROOM E		15:40-17:00
R14. Waveform Design II		
Session Chairs:	Gaspare Galati	*University of Rome Tor Vergata*
	Oleg Krasnov	*Delft University of Technology*
R14.1	**Optimization Methods for Solving the Low Autocorrelation Sidelobes Problem** U. Tan[1,2], O. Rabaste[3], C. Adnet[1], F. Arlery[1], J. Ovarlez[3,2] *[1]Thales Air Systems, Limours, [2]SONDRA– CentraleSupelec, Gif-sur-Yvette, [3]ONERA, Palaiseau, France*	
R14.2	**Theory and Practice of Alltop Waveform** R. N. Gourova[1], R. Pribic[2], A. Yarovoy[1] *[1]Delft University of Technology, [2]Thales Nederland, Delft, Netherlands*	
R14.3	**Fast Algorithm for Polynomial E-Pulse Synthesis** D. Filimonova, T. Shevgunov *Moscow Aviation Institute (National Research University), Russian Federation*	
R14.4	**Predistorter Based K-Band FMCW Radar For Vehicle Speed Detection** H. Ozturk[1], K. Yegin[2] *[1]Tubitak , Kocaeli, [2]Ege University, Izmir, Turkey*	

12.05.2016 THURSDAY

ROOM B		8:30-10:10
R15. Focussed Session: Noise Radar		
Session Chairs:	Konstantin Lukin	*National Academy of Science of the Ukraine*
	Andy Stove	*University of Birmingham*
R15.1	The NATO SET-184 Noise Radar Trials A. Stove[1], K. Lukin[2], G. Galati[3], G. Pavan[3], F. De Palo[3], K. Kulpa[4], J. S. Kulpa[4], L. Maslikowski[4] *[1]University of Birmingham, UK, [2]Institute of Radio Electronics National Academy of Science of the Ukraine, Kharkov, Ukraine, [3]Tor Vergata University, Rome, Italy, [4]Warsaw University of Technology, Poland*	
R15.2	Design of a Noise Radar Demonstrator A. Stove[1], G. Galati[2], C. Wasserzeier[3], Y. Erdogan[4], K. Savci[4], K. Lukin[5] *[1]University of Birmingham, UK, [2]Tor Vergata University, Rome, Italy, [3]Fraunhofer-Institut für Hochfrequenzphysik und Radartechnik FHR , Wachtberg, Germany, [4]Turkish Navy Research Center Command, Turkey, [5]National Academy of Science of the Ukraine, Kharkov, Ukraine*	
R15.3	Potential Applications of Noise Radar Technology and Related Waveform Diversity A. Stove[1], G. Galati[2], G. Pavan[2], F. De Palo[2] *[1]University of Birmingham, UK, [2]Tor Vergata University, Rome, Italy*	
R15.4	Software Defined L-Band Noise Radar Demonstrator K. Savci, A. Y. Erdogan, T. O. Gulum *Turkish Naval Research Center Command (TNRCC), Istanbul, Turkey*	
R15.5	SAR Imaging with Noise Waveform and Low Sampling Rate Based on Sparse Optimization Y. Zhang, X. Dong, W. Zhai, X. Gu, X. Shi, X. Kang *National Space Science Center, Beijing, China*	

ROOM C		8:30-10:10
R16. Ground Penetrating Radar		
Session Chairs:	Boris Levitas	*Geozondas Ltd.*
	Jerzy Pietrasinski	*Military University of Technology*
R16.1	Through-the-Wall Imaging Radar Experiments Based on 8-Element Vivaldi Radar Sensor B. Yilmaz, C. Ozdemir *Mersin University, Turkey*	
R16.2	Tree-Penetrating Imaging Focusing: Anexperimental Study and Concept Evaluation S. Gokkan, C. Ozdemir, B. Yılmaz *Mersin University, Mersin, Turkey*	
R16.3	Design and Validation of Slot Spiral Antenna for Stepped Frequency Ground Penetrating Radar P. P. Patnaik, K. Arunachalam, C. V. Krishnamurthy *Indian Institute of Technology, Chennai, India*	
R16.4	A Method for Eliminating Signals from False Targets in MUSIC Based GPR Range Profile P. Kaczmarek, J. Pietrasinski *Military University of Technology, Warsaw, Poland*	

ROOM D		8:30-10:10
R17. Focussed Session: Forward Scattering Radar		
Session Chairs:	Marina Gashinowa	*University of Birmingham*
	Edward Sedek	*PIT-RADWAR*
R17.1	Target Direct Position Determination in 2D CW Forward Scatter Radar M. Hamdollahzadeh, S. Adelipour, F. Behnia, M. M. Nayebi *Sharif University of Technology, Tehran, Iran*	
R17.2	Experimental Verification of Target Shadow Parameter Estimation in GPS FSR C. Kabakchiev[1], I. Garvanov[2], V. Behar[3], D. Kabakchieva[4], K. Kabakchiev[5], H. Rohling[6], K. Kulpa[7], A. Yarovoy[8] *[1]Sofia University, [2]ULSIT, [3]IICT, [4]UNWE, Sofia, Bulgaria, [5]University of Birmingham, UK, [6]TU Hamburg-Harburg, Germany, [7]TU Warsaw, Poland, [8]TU Delft, Netherlands*	

R17.3	FSR Velocity Estimation Using Spectrogram A. De Luca, M. Contu, S. Hristov, L. Daniel, M. Gashinova, M. Cherniakov *University of Birmingham, UK*
R17.4	Theoretical Performance Prediction for the Detection of Moving Targets with Forward Scatter Radar Systems N. Ustalli, D. Pastina, P. Lombardo *University of Rome La Sapienza, Italy*
R17.5	Signal Modeling and Experimental Verification in GNSS Forward Scatter Radar C. Liu, C. Hu, L. Wang, T. Long, T. Zeng *Beijing Institute of Technology, China*

ROOM B		10:55-12:15
R18. Scanned Arrays		
Session Chairs:	Maria Pilar Jarabo-Amores	*Universidad de Alcala*
	Pierfrancesco Lombardo	*SAPIENZA University of Rome*
R18.1	Signal Processing in Polish C-band Electronically Scanned Array Radars: Past, Present and Future M. Meller, M. Sankowski, E. Blok, M. Kwiatkowski *PIT-RADWAR, Gdansk, Poland*	
R18.2	Optimizing Electronically Beam Steering Time of 10000 Elements Passive Phased Array Antenna Using FPGA R. P. Rathore *LRDE, Bangalore, India*	
R18.3	Non-Uniform Constrained Optimization of Radar Search Patterns in Direction Cosines Space Using Integer Programming Y. Briheche[1,2], F. Barbaresco[1], F. Bennis[2], D. Chablat[2], F. Gosselin[1] *[1]Thales Air Systems, Limours, [2]IRCCyN, Nantes, France*	
R18.4	Sea Clutter Modelling for Space-Time Processing S. Kemkemian, J. Degurse, V. Corretja, R. Cottron *Thales Airborne Systems, Elancourt-Cedex, France*	

ROOM C		10:55-12:15
R19. Tracking		
Session Chairs:	Reda Zemmari	*Fraunhofer FKIE*
	Andrzej Witczak	*Military University of Technology*
R19.1	Maneuvering Target Tracking in Wide Area Multilateration Radar System A. Szullo, R. Seller *Budapest University of Technology and Economics, Hungary*	
R19.2	Tracking Quality Monitoring Based on Information Geometry and Geodesic Shooting M. Pilte, F. Barbaresco *Thales, Limours, France*	
R19.3	Design of An IMMNNJPDA Tracker for HFSWR Z. Ding, P. Moo *DRDC Ottawa, Canada*	
R19.4	Tracking Airborne Targets through Windmill Areas and Rain Clutter with Ground Based Radar D. Nagel, C. Neumann *Airbus DS Electronics and Border Security GmbH, Ulm, Germany*	

ROOM D		10:55-12:15
R20. DoA/Multilateration*		
Session Chairs:	Myriam Nouvel	*Thales Airborne Systems*
	Zbigniew Czekala	*PIT-RADWAR*
R20.1	Optimized Algorithm for Solving Phase Interferometer Ambiguity S. V. Doan, J. Vesely, P. Janu, P. Hubacek, L. X. Tran *Faculty of Military Technology, University of Defence, Brno, Czech Republic*	
R20.2	Experimental Measurement of Time Difference Of Arrival H. Seute[1,2], C. Enderli[1], J. Grandin[1], A. Khenchaf[2], J. Cexus[2] *[1]Thales Airborne Systems, Elancourt, [2]ENSTA Bretagne, Brest, France*	
R20.3	Angle of Arrival Estimator Based on Artificial Neural Networks E. N. Efimov, T. Y. Shevgunov *Moscow Aviation Institute (National Research University), Russian Federation*	
R20.4	Instantaneous DoA Estimation for a Single Source I. D. Chyrka *Bulgarian Academy of Sciences, Sofia, Bulgaria*	

* correction w.r.t. printed programme

ROOM B		13:15-14:35
R21. Applications*		
Session Chairs:	Yulia Averyanova	*National Aviation University*
	Paolo Marques	*Instituto de Telecomunicacoes*
R21.1	Output Consistency Analysis of the Polarimetric Weather Radar Simulator Through a Real Weather Event E. Barcaroli[1], F. Cuccoli[1], S. Lischi[1], A. Lupidi[1], L. Facheris[2,1] *[1]CNIT-RaSS, Pisa, [2]University of Florence, Italy*	
R21.2	Investigation on Radar-Based Applications for mini-UAS and MAVs A. F. Scannapieco, A. Renga, A. Moccia *University of Naples Federico II, Italy*	
R21.3	Efficient Search Strategies for a Low Earth Orbit Surveillance Radar S. Beer, U. Fuchs *Airbus DS Electronics and Border Security GmbH, Ulm, Germany*	
R21.4	Security Enhancement in Small Private Airports Through Active and Passive Radar Sensors T. Martelli[1], C. Bongioanni[1], F. Colone[1], P. Lombardo[1], A. Meta[2] *[1]SAPIENZA University of Rome, Italy, [2]MetaSensing BV, Noordwijk, Netherlands*	

ROOM C		13:15-14:35
R22. Classification/Micro-Doppler		
Session Chairs:	Nadav Levanon	*Tel Aviv University*
	Felix Yanovsky	*National Aviation University Ukraine*
R22.1	Micro-Doppler-Based Classification Study on the Detections of Aerial Targets and Wind Turbines O. Karabayır, S. M. Yucedag, O. M. Yucedag, A. F. Coskun, H. A. Serim *The Scientific and Technological Research Council of Turkey, Kocaeli, Turkey*	
R22.2	Robust Airborne Target Recognition Based on Reccurence Plot Quantification of Micro-Doppler Radar Signatures M. Johari, M. Nayebi *Sharif University of Technology, Tehran, Iran*	
R22.3	Target Classification in Perimeter Protection with a Micro-Doppler Radar S. Bjorklund[1,2] *[1]Swedish Defence Research Agency (FOI), Linköping, [2]Blekinge Institute of Tech., Karlskrona, Sweden*	
R22.4	Classification of Moving Targets Using Mirco-Doppler Radar O. Lam[1], R. Kulke[2], M. Haegelen[2], G. Moellenbeck[2] [1]Hochschule Rhein-Waal, [2]IMST GmbH, Kamp-Lintfort, Germany	

* correction w.r.t. printed programme

ROOM B/C/D		14:45-16:20
IRS Plenary Session – MRW'2016 Closing		
Session Chairs:	Hermann Rohling	*Technische Universitaet Hamburg*
	Krzysztof Kulpa	*Warsaw University of Technology*
Keynote Presentations:		
HF Over-The-Horizon-Radar (OTHR) in Canada Thayananthan Thayaparan *DRDC Ottawa, Canada* Radar Developments in Hungary During World War II Istvan Balajti, Ferenc Hajdu *National University of Public Service, Hungary*		
Closing Ceremony		
Winners of the Young Authors Contest		Jacek Misiurewicz *IRS TPC Chair*
Winners of the NI Students Contest on Radar Systems		Raffaele Fiengo *National Instruments*
IRS 2016 Closing Remarks		Krzysztof Kulpa *IRS2016 Chair*
Summary of the MRW2016		Jozef Modelski *MRW2016 Chair*
Invitation to the MRW2018		Krzysztof Kulpa/Jozef Modelski

TUTORIALS

ROOM H	09.05.2016 (Monday)	08:00-12:00 13:30-17:30
NI Tutorial		
Radar School at MRW'2016		

ROOM B	09.05.2016 (Monday)	17:00-19:00
Automotive Radar Tutorial		
Hermann Rohling		

ROOM G	12.05.2016 (Thursday)	09:00 – 13:00
QWED Tutorial		
Janusz Rudnicki	CAD Modelling in Free QW-Modeller – Preparing Complete Project for EM Simulations in QuickWave	

ROOM D	12.05.2016 (Thursday)	13:15-14:35
Quantum Radar Tutorial		
Konstantin Lukin		

EXHIBITOR PRESENTATIONS

ROOM B	10.05.2016 (Tuesday)	12:15-13:15 [LUNCH TIME]
TEKTRONIX Company		
Tadeusz Asyngier	Analiza i generacja sygnałów radarowych przy pomocy najnowszych rozwiązań pomiarowych Tektronix	

ROOM B	11.05.2016 (Wednesday)	12:15-13:15 [LUNCH TIME]
Microwave Vision Group		
Per Noren	Advanced Techniques of Antenna Measurements	