

09.05.2016 (Monday)

ROOM B		8:30-10:10
M1. Material Measurements and VNA Calibration		
Session	Dominique Schreurs	<i>University of Leuven</i>
Chairs:	Wojciech Wiatr	<i>Warsaw University of Technology</i>
M1.1	268: “Evaluation of a Reflection Based Dehydration Sensing Method for Wristwatch Integration” F. Trezn ¹ , R. Weigel ¹ , D. Kissinger ^{2,3} , ¹ Institute for Electronics Engineering, Erlangen, Germany, ² IHP, Frankfurt (Oder), Germany, ³ Technische Universität Berlin, Berlin, Germany	
M1.2	184: “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	402: “Electronic Calibration Unit for DC-8 GHz Vector-Network-Analyzer Measurements” M. Abramowicz, A. Lewandowski, Warsaw University of Technology, Warsaw, Poland	
M1.4	172: “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 , ¹ O.Ya.Usikov Institute of Radiophysics and Electronics, NAS of Ukraine, Kharkiv, Ukraine, ² Institute of Physics, Chinese Academy of Sciences, Beijing, China	
M1.5	429: “Investigation of Influence of Measurement Conditions on Accuracy of Material Characterization in sub-THz Frequency Range” K. Godziszewski, Y. Yashchysyn, Warsaw University of Technology, Warsaw, Poland	

ROOM C		8:30-10:10
M2. Sensors		
Session	Jan Machac	<i>Czech Technical University</i>
Chairs:	Mateusz Mazur	<i>PIT-RADWAR</i>
M2.1	357: “Wireless Multimodal Localization Sensor For Industrial Applications”, K. Bizewski, M. Tarkowski, M. Rzymowski, L. Kulas, K. Nyka, Gdansk University of Technology, Gdansk, Poland	
M2.2	452: “TDOA-TWR Based Positioning Algorithm for UWB Localization System” M. Kołakowski, V. Djaja-Joško, Warsaw University of Technology, Warsaw, Poland	
M2.3	242: “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, France, ² Telecom SudParis, Evry, France	
M2.4	365: “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, Prague, Czech Republic	
M2.5	446: “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, Gdansk, Poland	

ROOM D		8:30-10:10
M3. Antennas Arrays I		
Session	Dirk Heberling	<i>RWTH Aachen University</i>
Chairs:	Włodzimierz Zieniutycz	<i>Gdansk University of Technology</i>
M3.1	135: “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, Dublin, Ireland, ² RWTH Aachen University, Aachen, Germany	

M3.2	295: “Experimental Study of Signal Reception by Means of Time-Modulated Antenna Array” G. Bogdan, M. Jarzynka, Y. Yashchyshyn, Warsaw University of Technology, Warsaw, Poland
M3.3	326:” 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	191: “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
M3.5	141: “Circularly Polarized Offset Center Cross Slotted Array Antenna at Ka band”, S. Chatterjee ¹ , J. Das ² , A. Majumder ³ , ¹ Jadavpur University, Kolkata, India, ² SAMEER Kolkata, Kolkata, India, ³ SAMEER Kolkata, Kolkata, India

ROOM E		8:30-10:10
M4. Applications of Active Devices		
Session	Ernesto Limiti	<i>University of Rome Tor Vergata</i>
Chairs:	Robert Trew	<i>North Carolina State University</i>
M4.1	339: “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, USA, ² Texas A&M University, College Station, USA	
M4.2	430: “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, Dresden, Germany	
M4.3	173: “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, Japan, ² Hokkaido University, Sapporo, Japan, ³ Tohoku University, Sendai, Japan, ⁴ RIKEN center for advanced Photonics, Sendai, Japan	
M4.4	466: “Achieving Frequency Synchronization by GPS Disciplined Reference Signal” C. Biçici ¹ , O. Cerezci ¹ , ¹ Sakarya University, Institute of Natural Sciences, Sakarya, Turkey	
M4.5	393: “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, Mersin, Turkey, ² Emtech IT Engineering Ltd. Co., Mersin, Turkey, ³ Unitest Inc. , Istanbul, Turkey, ⁴ Ege University, Izmir, Turkey	

ROOM B/C/D/E		10:40-12:10
MIKON PLENARY SESSION – OPENING SESSION		
Session	Franco Giannini	<i>University of Roma Tor Vergata</i>
Chairs:	Jozef Modelski	<i>Warsaw University of Technology</i>
Invited	Josef Hausner: “Wireless Communications approaching 5G: Implication on Radio and Semiconductor Technologies”	
Invited	Ke Wu: ”Enabling Ambient Electromagnetic Energy Harvesting”	

ROOM B		13:15-14:55
M5. High Performance Microwave Measurements		
Session	Adam Abramowicz	<i>Warsaw University of Technology</i>
Chairs:	Daniel Pasquet	<i>ENSEA</i>
M5.1	“Impact of Measurement Uncertainty on Modelling” (Invited) Dominique Schreurs, Catholic University of Leuven,	
M5.2	“Resonance Methods for Characterization of Dielectrics, Semiconductors, Superconductors and Metamaterials” (Invited) Jerzy Krupka, Warsaw University of Technology	

M5.3	468: “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, France, ² XLIM Research Institute, Limoges, France
M5.4	22: “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, Saratov, Russian Federation, 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 Edward Sedek	<i>Thales Air Systems</i> <i>PIT-RADWAR</i>
M6.1	255: “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", Rome, Italy	
M6.2	368: “Modelling Carbon Nanotube Coated Structures - Comparison of Simulation Methods” M. Szafranski ¹ , A. Kawalec ² , A. Dukata ² , ¹ Wojskowy Instytut Techniczny Uzbrojenia, Zielonka, Poland, ² Wojskowa Akademia Techniczna im. Jarosława Dąbrowskiego, Warsaw, Poland	
M6.3	464: “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, France, ² LUSAC, Cherbourg-Octeville, France	
M6.4	415: “Sige-Bicmos Based Technology Platforms for Mm-Wave And Radar Applications” A. Mai, M. Kaynak, IHP, Frankfurt (Oder), Germany	
M6.5	367: “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, Mersin, Turkey, ² Emtech IT Engineering Ltd. Co, Mersin, Turkey, ³ Ege University, Izmir, Turkey	

ROOM D		13:15-14:55
M7. Antennas		
Session Chairs:	Michail Andriychuk Eugeniusz Jaszczyszyn	<i>National Academy of Sciences of Ukraine</i> <i>Warsaw University of Technology</i>
M6.1	347: “Wide-Scan Phased Array Antenna Fed by Coax-to-Microstriplines for 5G Cell Phones” N. Ojaroudiparchin, M. Shen, G. F. Pedersen, Aalborg University, Aalborg, Denmark	
M6.2	334: “The Dispersion Diagram Used for Periodic Patterned Microstrip Antenna Analysis” R. Kubacki, S. Lamari, K. Rudyk, Military University of Technology, Warsaw, Poland	
M6.3	102: “Fast Design Optimization of UWB Antennas Using Response Features” S. Koziel, A. Bekasiewicz, Reykjavik University, Reykjavik, Iceland	
M6.4	335: “A Novel Planar End-fire Circularly Polarized Dipole-Aperture Composite Antenna” W. Zhang ¹ , K. Tam ¹ , W. Lu ² , ¹ University of Macau, Macao, China, ² Nanjing University of Posts and Telecommunications, Nanjing, China	
M6.5	292: “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, Saudi Arabia, 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:	Georg Boeck Marian Pospieszalski	<i>Berlin Institute of Technology</i>
M6.1	317: “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, Berlin, Germany, ² Leibniz-Institut fuer	

	Hochfrequenztechnik, Berlin, Germany
M6.2	449: “A 12-W GaN-HEMT Power Amplifier for Ku-Band Satellite Communication“ Daniel Maassen, Felix Rautschke, Thomas Huellen, Georg Boeck, Microwave Engineering Laboratory, Berlin Institute of Technology, Berlin, Germany, Ferdinand-Braun-Institut (FBH), Leibniz-Institut fuer Hoechstfrequenztechnik, Berlin, Germany, GloMic GmbH, Berlin, Germany
M6.3	325: “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
M6.4	175: “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, Bologna, Italy, ² Warsaw University of Technology, Warsaw, Poland, ³ KU Leuven, Leuven, Belgium, ⁴ Institute of Electronics Materials Technology, Warsaw, Poland
M6.5	304: “S-band GaN PolHEMT Power Amplifier” M. Góralczyk, D. Gryglewski, Warsaw University of Technology, Warsaw, Poland

ROOM A		14:55-15:40
Interactive Forum P1 (MIKON)		
Session Chairs:	Kamil Staszek Wojciech Wojtasiak	<i>AGH University of Science and Technology</i> <i>Warsaw University of Technology</i>
P1.1	454: “A New Method for Wireless Synchronization and TDOA Error Reduction in UWB Positioning System” V. Djaja-Josko, J. Kolakowski, Warsaw University of Technology, Warsaw, Poland	
P1.2	359: “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, St. Petersburg, United States, ² Radboud University, Institute for Molecules and Materials, Nijmegen, United States, ³ Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russian Federation	
P1.3	371:” Remote Synchronization of Atomic Clocks” L. Sliwczyński ¹ , P. Krehlik ¹ , M. Lipiński ¹ , J. Nawrocki ² , A. Binczewski ³ , J. Pieczerak ⁴ , L. Buczek ¹ , J. Kołodziej ¹ , ¹ AGH University of Science and Technology, Krakow, Poland, ² Astrogeodynamic Observatory Space Research Center AOS, Borowiec, Poland, ³ Poznan Supercomputing and Networking Center PSNC, Poznan, Poland, ⁴ Orange Polska, Warszawa, Poland	
P1.4	372:” Locating the Sources of Strong ELF Electromagnetic Pulses Using Two Receivers Placed on Different Continents” J. Młynarczyk ¹ , A. Kulak ¹ , J. Kubisz ² , ¹ AGH University of Science and Technology, Krakow, Poland, ² Jagiellonian University, Krakow, Poland	
P1.5	114:” A Comparative Study Between Two Novel Fractal Monopole Antennas for UWB Applications” I. Acharya, VIT University, Chennai, India	
P1.6	193:” 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	328:” 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	- 190:” 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	370:” 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, Wroclaw, Poland, ² Wroclaw Medical University, Wroclaw, Poland	
P1.10	417:” The Design Concept of K-band Frequency Tripler” M. Skweres, PitRadwar SA, Warsaw, Poland	

P1.11	363:” Generalized Equivalent Circuit Model of HEMT Including Distributed Gate Effects” M. Góralczyk, Warsaw University of Technology, Warsaw, Poland
P1.12	349:” 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 ³ , ¹ Warsaw University of Technology, Warsaw, Poland, ² VIGO System SA, Ożarów Mazowiecki, Poland, ³ Warsaw University of Technology, Warsaw, Poland
P1.13	238:” 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 , Torino, Italy, ² Cardiff University, Cardiff, UK
P1.14	428:” 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	362: “A DC Analytical AlGaIn/GaN HEMT Model for Transistor Characterization” D. L. Kuchta, W. Wojtasiak, Warsaw University of Technology, Warsaw, Poland
P1.16	209:” Cylindrical Horn Antenna Array With Uprised Beam in Elevation” M. Mazur, I. Kurcaba, PIT-Radwar S.A., Gdańsk, Polska
P1.17	467: “Slot Loop Antennas Printed on 3D Textile Substrate” J. Spurek, J. Velim, M. Cupal, Z. Raida, J. Prasek, J. Hubalek, Brno University of Technology, Brno, Czech Republic
P1.18	410: “Radiation Pattern Synthesis for RADAR Application Using Genetic Algorithm” A. P. Raniszewski, PIT-RADWAR S.A., Warsaw, Poland
P1.19	300:” 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, Warsaw, Poland
P1.20	474:” An LTCC Microwave-microfluidic Reactor” P. Słobodzian ¹ , J. Macioszczyk ² , K. Malecha ² , L. Golonka ² , ¹ Wroclaw Univ. of Technology, Wrocław, Poland, ² Wroclaw Univ. of Technology, Wrocław, Poland
P1.21	405: “Design of Dual-Polarized MIMO Linear Antenna Arrays with Increased Port-To-Port Isolation” D. Wójcik, M. Surma, A. Noga, M. Magnuski, Silesian University of Technology, Gliwice, Poland
P1.22	202: “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, Kyiv, Ukraine, ² Autonomous University of State Morelos (UAEM), Cuernavaca, Mor., Mexico, ³ Technical University of Denmark, Kgs. Lyngby, Denmark, ⁴ University of Salford, Salford, United Kingdom

ROOM B		15:40-17:00
M9. Wireless Communications		
Session	Silvio Barbin	
Chairs:	Piotr Słobodzian	Wroclaw Univristy of Technology
M9.1	Kam-Weng Tam: "Theory and Demonstration of Non-Linear Communication System with Harmonic Diversity" (Invited)	
M9.2	109: “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	462: “A Simple Performance –Boosting Algorithm for Transmitt Power Control in WLAN Access Points” K. Staniec, M. Michalski, Wroclaw University of Technology, Wroclaw, Poland	

ROOM C		15:40-17:00
M10. Radar Technology		
Session	Caner Ozdemir	<i>Mersin University, Mersin, Turkey</i>
Chairs:	Piotr Samczyński	<i>Warsaw University of Technology</i>
M10.1	403: “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, Erlangen, Germany	
M10.2	365: “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, Prague, Czech Republic	
M10.3	388: “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. Grzegorzółka ¹ , A. Lewandowski ¹ , ¹ Warsaw University of Technology, Warsaw, Poland, ² PIT-Radwar S.A., Warsaw, Poland, ³ KU Leuven, Leuven, Belgium	
M10.4	451: “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, Gdansk, Poland	
M10.5	396: “Distance and Vehicle Speed Estimation in OFDM Multipath Channels” A. El Assaad ¹ , M. Krug ² , G. Fischer ³ , ¹ Novero GmbH, Nuremberg, Germany, ² Munich University of Applied Sciences, Munich, Germany, ³ University of Erlangen-Nuremberg, Erlangen, Germany	

ROOM D		15:40-17:00
M11. Antennas for communication systems		
Session	Ivan Prudyus	<i>Lviv Polytechnic National University</i>
Chairs:	Marian Wnuk	<i>Military University of Technology</i>
M11.1	264: “Architectures for Efficient Power Sharing in Active Multiple-Feed-per-Beam Satellite Antennas” C. Rave, A. F. Jacob, Techn. Univ. Hamburg-Harburg, Hamburg, Germany	
M11.2	346: “Low-Profile Fabry-Pérot Cavity Antenna with Metamaterial SRR Cells for Fifth Generation Systems” N. Ojaroudiparchin, M. Shen, G. F. Pedersen, Aalborg University, Aalborg, Denmark	
M11.3	394: “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, Wroclaw, Poland	
M11.4	159: “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	Nikolai Cherpak	<i>National Academy of Sciences of Ukraine</i>
Chairs:	Janusz Dobrowolski	<i>Warsaw University of Technology</i>
M12.1	385: “A Zone-Based Approach for Physics-Based FET Compact Models” R. J. Trew, North Carolina State University, Raleigh, United States	
M12.2	254: “Resistive Bias Network for Optimized Isolation in SPDT Switches” G. Polli, M. Palomba, S. Colangeli, A. Salvucci, E. Limiti, University of Rome "Tor Vergata", Rome, Italy	
M12.3	259: “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, Roma, Italy, ² Politecnico di Torino, Torino, Italy, ³ Cardiff University, Cardiff, United Kingdom	
M12.4	213: “Low Frequency Noise Spectroscopy and Threshold Characteristics of Laser Diodes” J. Glemža, J. Matukas, S. Pralgauskaitė, Vilnius University, Vilnius, Lithuania	

ROOM PIANO		16:00-19:00
Chapter Chairs Meeting		
ROOM B		17:00-19:00
IRS Tutorial		
Hermann Rohling		

10.05.2016 (Tuesday)

ROOM B		8:30-10:10
M13. RF and Microwave Receivers		
Session	Tibor Berceli	<i>Budapest University of Technology and Economics</i>
Chairs:	Bronisław Stec	<i>Military University of Technology</i>
M13.1	122: “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	355: “Broadband Phase Detector as Microwave Correlator” B. Stec, W. Susek, M. Czyżewski, Military University of Technology, Warsaw, Poland
M13.3	397: “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 Tech., Warsaw, Poland
M13.4	112: “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	148: “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, Novi Sad, Yugoslavia

ROOM C		8:30-10:10
M14. Couplers		
Session	Wojciech Gwarek	<i>Warsaw University of Technology</i>
Chairs:	Ke Wu	<i>University of Montreal</i>
M14.1	181: “On Design Optimization of Miniaturized Microstrip Dual-Band Rat-Race Coupler with Enhanced Bandwidth” A. Bekasiewicz ¹ , S. Koziel ¹ , W. Zieniutycz ² , ¹ Reykjavik University, Reykjavik, Iceland, ² Gdansk University of Technology, Gdansk, Poland	
M14.2	187: “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, Berlin, Germany, ² Ferdinand-Braun-Institut (FBH), Berlin, Germany	
M14.3	395: “High Directivity Microstrip Couplers” A. Golaszewski, A. Abramowicz, Warsaw University of Technology, Warsaw, Poland	
M14.4	398: “Design Technique for Meta-Structure Planar Directional Couplers with Arbitrary Coupling Ratios” Z. Qamar ^{1,2} , W. Chan ¹ , D. Ho ² , ¹ City University of Hong Kong, Hong Kong, Hong Kong, ² City University of Hong Kong, Hong Kong, Hong Kong	
M14.5	105: “Rapid Surrogate-Assisted Statistical Analysis of Compact Microstrip Couplers” S. Koziel ^{1,2} , A. Bekasiewicz ^{2,1} , ¹ Reykjavik University, Reykjavik, Iceland, ² Gdansk University of Technology, Gdansk, Poland	

ROOM D/E		8:30-10:10
IRS PLENARY SESSION		
Session	Hermann Rohling	<i>Technische Universitaet Hamburg</i>
Chairs:	Krzysztof Kulpa	<i>Warsaw University of Technology</i>
Invited	“Terahertz Radar for Imaging Applications” Goutam Chattopadhyay, NASA Jet Propulsion Laboratory, California Institute of Technology	
Invited	“European Defense Agency and Challenges of Modern Radar Technology” Ignacio Montiel-Sánchez, EDA	
Invited	“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	Jerzy Michalski	<i>SpaceForest</i>
Chairs:	Dmitry Usanov	<i>Saratov State University</i>
M15.1	312: “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, Warsaw, Poland, ² QWED, Warsaw, Poland
M15.2	356: “Substrate-Integrated Waveguide (SIW) Filter Design Using Space Mapping” N. Leszczynska, M. Klinkosz, M. Mrozowski, Gdansk University of Technology, Gdansk, Poland
M15.3	360:” Fast and Effective Tuned Coupling for Mono-Mode Microwave Power Applicators” W. Gwarek, M. Celuch, Warsaw Univeristy of Technology, Warszawa, Poland,
M15.4	379: “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	472: “Modeling Interconnects for Thermoelectrically Cooled Infrared Detectors” W. Wiatr ¹ , L. Opalski ¹ , J. Piotrowski ² , M. Krysicki ¹ , ¹ Warsaw University of Technology, Warszawa, Poland, ² Vigo System S.A., Ozarow Mazowiecki, Poland

ROOM A		10:10 – 10:55
Interactive Forum P2 (MIKON)		
Session	Kamil Staniec	<i>Wroclaw University of Technology</i>
Chairs:	Daniel Gryglewski	<i>Warsaw University of Technology</i>
P2.1	174:”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	186:”FDTD Modeling of Weakly Conductive Wires Dispersed in a Dielectric Mixture” B. Salski, Warsaw University of Technology, Warsaw, Poland	
P2.3	223: “Parallel Implementation of the DGF-FDTD Method on GPU Using the CUDA Technology” T. P. Stefanski, T. Dziubak, S. Orlowski, Gdansk University of Technology, Gdansk, Poland	
P2.4	225:”HPEM Susceptibility Assessments of Data Storage Devices” M. Bugaj, R. Przesmycki, M. Wnuk, Military University of Technology, Warsaw, Poland	
P2.5	376:”The Gyrotron Source for the EPR Spectroscopy” M. G. Hruszowiec, . Nowak, B. Szlachetko, M. Grzelczak, W. Czarczynski, E. F. Plinski, T. Więckowski, Wrocław University of Technology, Wrocław, Poland	
P2.6	382:”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, St. Petersburg, Russian Federation	
P2.7	461:”Analytical Modeling for Optical Imaging of Controlled Object’s Internal Structure” L. Tereshchenko ¹ , I. Silantieva ² , ¹ National Aviation University, Kyiv, Ukraine, ² National Transport University, Kyiv, Ukraine	
P2.8	333:”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, Gdansk, Poland	
P2.9	473:” Some Aspects of Using Simplified Real Frequency Technique” R. A. Borowiec, Wrocław University of Technology, Wrocław, Poland	
P2.10	233: „Super Wideband Conformal Antenna Array On Cylindrical Surface” N. Agnihotri, G. Karthikeya , V. Thejas , S. Siddiq , Dayananda Sagar College of Engineering , Bangalore, India	
P2.11	192: “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	408: “Fractal Hexagonal Disc Shaped Ultra Wide band Antenna” A. N. Badr ^{1,2} , A. M. Allam ^{2,1} , ¹ German University in Cairo (GUC), Cairo, Egypt, ² German University in Cairo (GUC), Cairo, Egypt	
P2.13	147:”Nonreciprocal Properties of Elliptical Ferrite Coupled Line Junction” A. Kusiek, W. Marynowski, J. Mazur, Gdansk University of Technology, Gdansk, Poland	

P2.14	353: "Estimation of a Single Balun Parameters on the Base of Back-To-Back Measurements" L. Sorokosz ¹ , W. Zieniutycz ² , ¹ PIT-Radwar, Gdansk, Poland, ² Gdańsk University of Technology, Gdańsk, Poland
P2.15	404:" Millimeter Wave Permittivity and Loss Tangent Measurements ff LTCC Materials" P. R. Bajurko, Warsaw University of Technology, Warsaw, Poland
P2.16	475:" Equivalent-Circuit Modeling of Coaxial-Connector Center-Conductor Gap" L. J. Opalski, A. Lewandowski, A. Golaszewski, A. Abramowicz, W. Wiatr, Warsaw University of Technology, Warszawa, Poland
P2.17	478:" 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, Warsaw, Poland
P2.18	203:" Quality Control in Microelectronics Using Scanning Probe Microscopy" T. Martinek, J. Kudelka, M. Navratil, V. Kresalek, Faculty of Applied Informatics, Tomas Bata University in Zlín, Zlín, Czech Republic
P2.19	401:" The Gyrotron Magnetic System Design" M. G. Hruszowiec, E. F. Pliński, Wrocław University Of Technology , Wrocław, Poland
P2.20	251:" Synthesis of Synchronization Signals' Extraction Filtration Functions" I. Prudyus, V. Miskiv, S. Miskiv, R. Yankevych, Lviv Polytechnic National University, Lviv, Ukraine
P2.21	291: "An Open-Loop Approach to Optical Domain Combined Dual-Loop Optoelectronic Oscillator" K. Madziar, B. Galwas, Warsaw University of Technology, Warsaw, Poland

ROOM B		10:55-12:15
M16. Medical Applications		
Session	Bogdan Galwas	<i>Warsaw University of Technology</i>
Chairs:	Oksana Shramkova	<i>University of Crete</i>
M16.1	"Bridging Millimeter-Wave Biophysics, Safety and Imaging" (Invited) Luca Perregrini, University of Pavia	
M16.2	119: "UWB Antenna for Brain Stroke and Brain Tumour Detection" M. A. Shokry, A. M. Allam, German university in Cairo, Cairo, Egypt	
M16.3	284: "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, Warsaw, Poland, ² KU Leuven, Leuven, Belgium, ³ Holst Centre / imec-NL, Eindhoven, Netherlands, ⁴ Universiti Malaysia Perlis, Perlis, Malaysia	
ROOM C		10:55-12:15
M17. Multiport Structures and Phase Shifters		
Session	Maurizio Bozzi	<i>University of Pavia</i>
Chairs:	Krzysztof Nyka	<i>Gdansk University of Technology</i>
M17.1	153: "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, Patras, Greece	
M17.2	424: "Miniaturized Compensated Quasi-Lumped Wideband Marchand Balun" I. Piekarcz, J. Sorocki, K. Wincza, S. Gruszczynski, AGH University of Science and Technology, Krakow, Poland	
M17.3	155: "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	299: "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
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ROOM D		10:55-12:35
R1. SAR Systems		
Session Chairs:	Joachim Ender Piotr Samczyński	<i>Warsaw University of Technology</i>
R1.1	151: “Explicit Motion Compensation for Back projection in Spotlight SAR” A. Sommer, J. Ostermann, (Leibniz Universitat Hannover, Hannover, Germany)	
R1.2	165: “Airborne Ka FMCW MiSAR System and Real Data Processing” H. Wang (Institute of Electronics, Chinese Academy of Sciences Beijing, Beijing, China), M. Jiang (Shandong Institute of Aerospace Electronic Technology Company, Beijing, China), S. Zheng (Beihang University, Beijing, China)	
R1.3	262: “Chosen Results of Flight Tests of WATSAR System” P. Kaniewski, C. Lesnik, P. Serafin, M. Labowski, (Military University of Technology, Warszawa, Poland)	
R1.4	265: “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	374: “C-band SAR radar trials using UAV platform” D. Gromek, P. Samczynski, K. Kulpa (Warsaw University of Technology , Warsaw, Poland), G. C. Cruz, T. M. Oliveira, L. F. Félix, P. A. Gonçalves, C. M. Silva, A. L. Santos, J. A. Morgado (Portuguese Air Force, Sintra, Portugal)	

ROOM E		10:55-12:35
R2. Automotive Radar		
Session Chairs:	Hermann Rohling Piotr Samczyński	<i>Technische Universitaet Hamburg</i> <i>Warsaw University of Technology</i>
R2.1	182: “Traffic Monitoring Radar for Road Map Calculation” R. Behrendt (Smart microwave sensors GmbH, Braunschweig, Germany)	
R2.2	185: “Waveform and Receiver Parameters Design Choices for a Reconfigurable Digital FMCW Radar” S. Neemat, O. Kransnov, A. Yarovoy (TuDelft, Delft, Netherlands)	
R2.3	482: “35 GHz FMCW Drone Detection System” J. Drozdowicz, M. Wielgo, P. Samczynski, K. Kulpa (Warsaw University of Technology, Warsaw, Poland), J. Krzonkala, M. Mordzonek, M. Bryl, Z. Jakielaszek (Air Force Institute of Technology, Warsaw, Poland)	
R2.4	336: “F-based Child Occupation Detection in the Vehicle Interior” A. R. Diewald (IEE, Contern, Luxembourg, Hochschule Trier, Trier, Germany), J. Landwehr, D. Tatarinov, P. Di Mario Cola, C. Watgen, C. Mica, M. Lu-Dac, P. Larsen, O. Gomez, T. Goniva (IEE, Contern, Luxembourg)	
R2.5	270: “Radar sensor interference and protection needs for highly automated and autonomous driving” H. Bloecher (Daimler AG, Ulm, Germany)	

ROOM PIANO		10:55-12:35
M18. Computational Techniques		
Session Chairs:	Ahmet Kizilay Slawomir Koziel	<i>Yildiz Technical University</i> <i>Reykjavik University</i>
M18.1	348: “Wideband Model Order Reduction for Macromodels in Finite Element Method” G. Fotyga, K. Nyka, Gdansk University of Technology, Gdansk, Poland	
M18.2	144: “Resonant Frequencies in the Open Microstrip Structures Placed on Curved Surfaces” R. Lech, A. Kusiek, Gdansk University of Technology, Gdansk, Poland	

M18.3	137: “Periodic Boundary Conditions in the FEM using Arbitrary Meshes” O. Ouchetto ^{1,3} , S. Zaamoun ² , ¹ University Hassan II, Casablanca, Morocco, ² University Hassan II, Casablanca, Morocco, ³ University Hassan II, Casablanca, Morocco
M18.4	107: “Cost-Efficient Simulation-Driven Design of Compact Impedance Matching Transformers” A. Bekasiewicz ^{1,2} , S. Koziel ^{1,2} , ¹ Reykjavik University, Reykjavik, Iceland, ² Gdansk University of Technology, Gdansk, Poland

ROOM B	12:15-13:15
Commercial time	
TEKTRONIX Company	
Tadeusz Asyngier	„Analiza i generacja sygnałów radarowych przy pomocy najnowszych rozwiązań pomiarowych Tektronix”

ROOM B	13:15-14:55
M19. Radar Applications	
Session	Bogdan Smólski
Chairs:	Alexander Yarovoy <i>Delft University of Technology</i>
M19.1	"Automotive radar and adas on its way to autonomous driving...." (Invited) Holger H. Meinel
M19.2	260: “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, Rome, Italy, ² TTI Norte, Santander, Spain, ³ IMST GmbH, Kamp-Lintfort, Germany, ⁴ ESA Estec, Keplerlaan, Netherlands
M19.3	305: “A 10W X-Band T/R Module for AESA” D. Gryglewski, D. Rosołowski, W. Wojtasiak, M. Góralczyk, W. Gwarek, Warsaw University of Technology, Warsaw, Poland
M19.4	343: “Human Micro-Doppler Signature Extraction in the Foliage-penetration Environment” J. Zhang, T. Jin, Y. He, L. Qiu, Z. Zhou, National University of Defense Technology, Changsha, China

ROOM C	13:15-14:55
M20. Space Technologies	
Session	Marek Banaszekiewicz <i>Polish Space Agency</i>
Chairs:	Steffen Kuntz <i>Airbus Defence and Space</i>
M20.1	381:” CONCERT 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	383:” Silicon Integrated Circuits for Space Applications” R. Piesiewicz, SIRC Sp. z o.o., Gdynia, Poland
M20.3	421:” Microelectronics in Poland - From Accelerators to Space Technology” M. Jankowski, A. Napieralski, Lodz University of Technology, Lodz, Poland
M20.4	502:” 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	503:” Technical Aspects of Future SAR Missions” S. Kuntz, Airbus Defence and Space, Immenstaad, Germany

ROOM D	13:15-14:55
R3. Signal Processing I	
Session	Birsen Yazici <i>Rensselaer Polytechnic Institute</i>
Chairs:	Adam Kawalec <i>Military University of Technology</i>
R3.1	179: “Two-Band Radar Extensions for Cognitive Operation” T. Brenner, W. Dyszynski, L. Lamentowski, R. Mularzuk, Pit Radwar, Warsaw, Poland

R3.2	194: “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	229: “Probabilistic Code Extractor for Low SNR SIF/IFF Mode A, C Respond” P. Hubacek, University of Defence, Brno, Czech Republic), J. Vesely (University of Defence, Brno, Czech Republic)
R3.4	288: “Geometric barycenters of time/Doppler Spectra for Radar Detection in Non-stationary Environments” A. Le Brigant (Thales Air Systems, Limours, France, Institut Mathématique de Bordeaux, Talence, France), F. Barbaresco, C. Culan (Thales Air Systems, Limours, France)

ROOM E		13:15-14:55
R4. Systems and Applications I		
Session	Christo Kabakchiev	<i>Sofia University</i>
Chairs:	Maciej Smolarczyk	
R4.1	275: “Target Position Determining in Aeronautical Issues” J. Zak, M. Vach (Czech University of Life Sciences, Prague, Czech Republic)	
R4.2	214: “An Approach to Discrimination of Hydrometeors with Similar Polarization Properties within the Resolution Volume” Y. Averyanova, F. Yanovsky (National Aviation University, Kyiv, Ukraine)	
R4.3	330: “Frequency Monitoring System for the Over-The-Horizon-Radar (OTHR) in Mid-latitude” T. Thayaparan(Department of National Defence , Ottawa, Canada), K. Shimotakahara(Carleton University, Ottawa, Canada)	
R4.4	199: “Multivariate Copula Approach for Polarimetric Classification in Weather Radar Applications” F. J. Yanovsky, A. N. Rudiakova, R. B. Sinitsyn (National Aviation University, Kiev, Ukraine)	

ROOM PIANO		13:15-14:55
M21. Electromagnetic Modeling of Resonant Structures		
Session	Andrzej Karwowski	<i>Silesian University of Technology</i>
Chairs:	Luca Perregrini	<i>University of Pavia</i>
M21.1	380: “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 Matériaux, Université et INSA de Rouen - UMR CNRS 6634 - Normandie Université, Saint Etienne du Rouvray, France, ² University of Cergy, ETIS UMR 8051 CNRS, ENSEA, Cergy-Pontoise, France, ³ Quartz, ENSEA, Cergy-Pontoise, France	
M21.2	145: “Resonant Frequencies in Microstrip Structure with Omega Medium Substrate” R. Lech, A. Kusiek, W. Marynowski, J. Mazur, Gdansk University of Technology, Gdansk, Poland	
M21.3	161: „Efficient Complex Root Finding Algorithm for Microwave and Optical Propagation Problems” P. Kowalczyk, Gdansk University of Technology, Gdansk, Poland	
M21.4	239: “Scattering From a Conducting Cylinder Partially Buried in A Dielectric Half Space by a Decomposition Method” A. Kizilay ¹ , U. Saynak ² , ¹ Yildiz Technical University, Istanbul, Turkey, ² TUBITAK (The Scientific and Technological Research Council of Turkey), Kocaeli, Turkey	
M21.5	136: “Effective Constitutive Parameters of Anisotropic Chiral Multilayered Media” O. Ouchetto ^{3,4} , B. Abou El Majd ² , S. Zaamoun ¹ , ¹ University Hassan II, Casablanca, Morocco, ² University Hassan II, Casablanca, Morocco, ³ University Hassan II, Casablanca, Morocco, ⁴ University Hassan II, Casablanca, Morocco	

ROOM A		10:10 – 10:55
Interactive Forum P3 (MIKON + IRS)		
Session	Daniel O’Hagan	
Chairs:	Waldemar Susek	<i>Military University of Technology</i>
P3.1(M)	261:” FDTD Simulations on Disjoint Domains with the Use of Discrete Green's Function Diakoptics”	

	T. P. Stefanski, T. Dziubak, Gdansk University of Technology, Gdansk, Poland
P3.2(R)	306: “Textural Processing Using Maximum Likelihood Estimation of Fractal Dimension by Independent and Dependent Samples” A. Y. Parshin, Y. N. Parshin (Ryazan State Radioengineering University, Ryazan, Russian Federation)
P3.3(R)	470: “SDR-based LFM Signal Generator for Radar/SAR Systems” A. Grabowski (Warsaw university of technology, Warsaw, Poland)
P3.4(R)	409: “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)	364: “Two Receiving Channel Balanced RF FMCW FrontEnd for Radar Applications” D. Gromek, M. Urbanski, P. Krysiak, P. Dzwonkowski, P. Samczynski, A. Abramowicz, K. Kulpa (Warsaw University of Technology, Warsaw, Poland)
P3.6(R)	319: “Carrier- and Doppler-tunable FPGA-based Active Reflector for Radar Calibration” P. Roszkowski (Warsaw University of Technology, Warsaw, Poland)
P3.7(R)	311: “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)	257: “Low-THz Overhead Power Cable Signatures” B. Willetts, M. Gashinova, A. Stove, C. Constantinou, E. Hoare, E. Marchetti (University of Birmingham, Birmingham, UK)
P3.9(M)	448: “Magnetization Dynamics of NiFe Film and Anisotropic Magnetoresistance 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)	434: “The Preliminary Survey of Ship Recognition Algorithms Using ISAR Images” A. Kurowska (Warsaw University of Technology, Warsaw, Poland)
P3.11(M)	455:” MTCA.4 RTM Module for Direct Sampling Based Applications” M. Grzegorzolka ¹ , K. Czuba ¹ , I. Rutkowski ¹ , M. Hoffmann ² , U. Mavric ² , H. Schlarb ² , ¹ Warsaw University of Technology, Warsaw, Poland, ² Deutsches Elektronen-Synchrotron, Hamburg, Germany
P3.12(M)	479:” Low Phase Noise 1.3 GHz Synthesiser for European XFEL Accelerator Master Oscillator.” S. Hanasz ¹ , L. Zembala ¹ , B. Gąsowski ¹ , K. Czuba ¹ , H. C. Weddig ² , ¹ Warsaw University of Technology, Warsaw, Poland, ² Deutsches Elektronen Synchrotron, Hamburg, Germany
P3.13(M)	211:” Excellence of Resistance Temperature Detector RTDs in Airborne Microwave Hurricane Observation” R. A. Alsabah, A. Alsabbagh, I. Kostanic, J. Zec, Florida Institute of technology, Melbourne, United States
P3.14(M)	227:” Direct N-QAM Multiport Modulators Utilizing Butler Matrices’ K. Staszek, S. Gruszczynski, K. Wincza, AGH University of Science and Technology, Cracow, Poland
P3.15(M)	- 235:” Broadband Feeding Network for Two Circularly Polarized Antennas with Inherent Transmitter-Receiver Isolation” G. Jaworski ¹ , P. Górski ² , ¹ Wroclaw University of Technology, Wroclaw, Poland, ² ViaSat Antenna Systems SA, Lausanne, Switzerland
P3.16(M)	247:” 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)	116: “Frequency Reconfigurable Antenna Based on Left-Handed Metamaterial” H. Kimouche, H. Cheribi, Ecole Militaire Polytechnique, Algiers, Algeria

P3.18(M)	120: “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, Assiut, Egypt, ² King Saud University, Riyadh, Saudi Arabia, ³ King Abdulaziz City for Science and Technology, Riyadh, Saudi Arabia
P3.19(M)	128: “Modal Analysis of Planar Elliptical Resonator Deposited on Unshielded Dielectric Slab” M. Pergo ¹ , W. Zieniutycz ² , ¹ Pit-radwar s.a., Gdańsk, Poland, ² Gdańsk University of Technology, Gdańsk, Poland
P3.20(M)	224: “Reflector Modification of HPEM Generator Increasing E Field Strength” M. Bugaj, R. Przesmycki, M. Wnuk, J. Bugaj, Military University of Technology, Warsaw, Poland
P3.21(R)	113: “Analysis of Radar Detection Performance for Low Altitude Small Target” Q. Fu, Y. Yang, D. Feng, S. Xiao, CEMEE State Key Lab, Changsha, China
P3.22(R)	- 293: “Detection of Very Close Targets by Fusion CFAR Detectors” D. Ivković ¹ , M. Andrić ² , B. Zrnić ³ , ¹ Military Technical Institute, Belgrade, Yugoslavia, ² University of Defense, Belgrade, Yugoslavia, ³ Defense Technologies Department, Belgrade, Yugoslavia

ROOM B		15:40-17:00
M22. Passive Components		
Session	Michał Mrozowski	Gdansk University of Technology
Chairs:	Zbynek Raida	Brno University of Technology
M22.1	"3D-Printed, Textile, and Paper-based Substrate Integrated Waveguide Components for the Internet of Things" (Invited) Maurizio Bozzi, University of Pavia	
M22.2	237: “Some Recent Developments of Millimeter-Wave RFIC Attenuators” J. Bae, C. Nguyen, Texas A&M University, College Station, United States	
M22.3	241: “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, Saratov, Russian Federation, ² LLC, Saratov, Russian Federation, ³ JSC, Moscow, Russian Federation	

ROOM C		15:40-17:00
M23. Satellite Systems and Components		
Session	C. van't Klooster	Technical University of Eindhoven
Chairs:	Roman Kubacki	Military University of Technology
M23.1	463: “An Old Satellite Antenna Measured on a New Test Facility at Eindhoven University of Technology” C. van t Klooster, A. Tjihuis, B. Smolders, Technical University of Eindhoven, Eindhoven, Netherlands	
M23.2	183:” 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, Aachen, Germany, ² Dublin Institute of Technology, Dublin, Ireland	
M23.3	361: “The Communication and Spectrum Monitoring System of Smog-1 PocketQube Class Satellite” L. Dudas, A. Gschwindt, Budapest University of Technology and Economics, Budapest, Hungary	
M23.4	236: "VHF Right Angeled Planar Dipole Antenna Array For Cubesat Application” M. K. Saraswat, G. Karthikeya, N. Agnihotri, S. Siddiq, R. ThejasVishnu, Dayananda College of Engineering, Bangalore, India	

ROOM D		15:40-17:00
R5. Passive Radar Applications		
Session	Karl Frederik Olsen	
Chairs:	Tadeusz Brenner	PIT-RADWAR

R5.1	290: “A Signal and Plot Simulator for Passive Bistatic Radar” M. Zywek, M. Malanowski, M. K. Baczyk, Warsaw University of Technology, Warsaw, Poland
R5.2	210: “Group Sparsity Techniques for Data Fusion of a passive MISO Radar Network” M. Weiß, Fraunhofer FHR, Wachtberg, Germany
R5.3	426: “On the Detection of Small UAV Using a GSM Passive Coherent Location System” B. Knoedler, R. Zemmari, Fraunhofer FKIE, Wachtberg, Germany
R5.4	460: “Accelerating Rocket Detection Using Passive Bistatic Radar” K. I. Borowiec, M. Malanowski, Warsaw University of Technology, Warsaw, Poland

ROOM E		15:40-17:00
R6. Systems and Applications II		
Session	Francois Le Chevalier	
Chairs:	Robert Szelenbaum	
R6.1	176: “Some Aspects of the Multistatic Radar Network Topology Optimization” I. M. Ivashko, O. A. Krasnov, A. G. Yarovoy, Delft University of Technology, Delft, Netherlands	
R6.2	215: “Comparison of Target Detections from Active MSPSR System with Outputs of MLAT System” P. Cabalkova ¹ , R. Plsek ² , ¹ ERA a.s., Pardubice, Czech Republic, ² ERA a.s., Pardubice, Czech Republic	
R6.3	222: “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, Pisa, Italy, ² CNIT, National University Consortium for Telecommunications, Pisa, Italy, ³ Federal University of Itajubá, Itajubá, Brazil, ⁴ Inatel, National Institute of Telecommunications, Santa Rita do Sapucaí, Brazil	
R6.4	244: “Concept for an Advanced Navigational Phased Array Radar” N. Hansen ¹ , J. Mohncke ¹ , S. Radziejewski ¹ , A. F. Jacob ¹ , H. Mextorf ² , ¹ Technische Universität Hamburg-Harburg, Hamburg, Germany, ² Raytheon Anschütz GmbH, Kiel, Germany	

ROOM PIANO		15:40-17:00
M24. RF and THz Non-destructive Testing of Composite Materials		
Session	Henning Heuer	<i>Technische Universität Dresden</i>
Chairs:	Bartłomiej Salski	<i>Warsaw University of Technology</i>
M24.1	493:” High Resolution Radio Frequency Inspection of Carbon Fiber Composites” H. Heuer ¹ , M. Schulze ² , M. Pooch ² , ¹ Technische Universität Dresden, Dresden, Germany, ² Fraunhofer IKTS, Dresden, Germany	
M24.2	329:” 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, Kaiserslautern, Germany	
M24.3	344:” 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, Warsaw, Poland, ² Lublin University of Technology, Lublin, Poland	
M24.4	480: “Application of an Electromagnetic Sensor for Detection of Impact Damage in Aircraft Composites” Z. Li ¹ , A. Haigh ² , C. Soutis ¹ , A. Gibson ³ , R. Sloan ² , ¹ University of Manchester, Manchester, UK, ² University of Manchester, Manchester, UK, ³ University of Manchester, Manchester, UK	

11.05.2016 (Wednesday)

ROOM B		8:30-10:10
M25. Millimeter		
Session	Arne Jacob	
Chairs:	Andrzej Kucharski	<i>Wroclaw University of Technology</i>
M25.1	234: "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 University, College Station, United States	
M25.2	314: "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, Warsaw, Poland, ² State Res. Center of Superconductive Radioelectron, Kiev, Ukraine	

M25.3	345:” MM-Wave Dielectric Resonator Antenna (DRA) with Wide Bandwidth for the Future Wireless Networks” N. Ojaroudiparchin, M. Shen, G. F. Pedersen, Aalborg University, Aalborg, Denmark
M25.4	200: ”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	208: ”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	Paolo Colantonio	<i>University of Roma Tor Vergata</i>
Chairs:	Andrzej Jelenski	
M26.1	413: “High Efficiency and Low Distortion GaN MMIC Power Amplifier for Ghz Applications” R. Giofre, P. Colantonio, F. Giannini, University of Roma Tor Vergata, Roma, Italy	
M26.2	485: “GaN Technology Impact on Future Space Applications: From Devices to Architectures” M. C. Comparini, Telespazio, Roma, Italy	
M26.3	431: “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, Roma, Italy, ² TTI (Information and Communication Technologies), Santander, Spain	
M26.4	440:” 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, Padova, Italy	
M26.5	443:” 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	445:” 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, Rome, Italy, ² MECSA, Rome, Italy	

ROOM D		8:30-10:10
R7. Passive Radars		
Session	Heiner Kuschel	
Chairs:	Mateusz Malanowski	
R7.1	341: “On Angle Estimation in GSM Passive Coherent Location Systems” R. Zemmari, B. Knödler, U. Nickel, Fraunhofer FKIE, Wachtberg, Germany	
R7.2	414: “Strategies for Target Localization in Passive Bistatic Radar” G. Krawczyk, Warsaw University of Technology, Warsaw, Poland	
R7.3	453: “Quad Channel DVB-T Based Passive Radar” T. Peto, R. Seller, Budapest University of Technology and Economics, Budapest, Hungary	
R7.4	483: “SVD Based GSM Reference Channel Equalization for Passive Radiolocation” M. Wielgo, P. Krysik, J. Misiurewicz, Warsaw University of Technology, Warsaw, Poland	
R7.5	483: “SVD Based GSM Reference Channel Equalization for Passive Radiolocation” M. Wielgo, P. Krysik, J. Misiurewicz, Warsaw University of Technology, Warsaw, Poland	

ROOM E		8:30-10:10
R8. FS: Maritime Radar		
Session	Anna Dzvonkovskaya	

Chairs:	Andrzej Stateczny	
R8.1	392: “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	131: “A Hybrid Approach on Generating Correlated Sea Clutter for Maritime Radar Test” S. Heuel, A. Reil, C. van Driesten, Rohde & Schwarz, Munich, Germany	
R8.3	271: “Application Schema for Radar Information on Ship” W. Kazimierski, Maritime University of Szczecin, Szczecin, Poland	
R8.4	150: “Numerical Simulations of Electromagnetic Signature of Sea Surface in Presence of Pollutants” H. Ghanmi, A. Khenchaf, F. Comblet, Lab-STICC UMR CNRS 6285, Brest, France	
R8.5	125: “North Sea Millimeterwave Propagation Experiment” A. Danklmayer ¹ , J. Förster ² , P. Colditz ¹ , G. Biegel ¹ , T. Brehm ¹ , ¹ Fraunhofer FHR, Wachtberg, Germany, ² Technical Center for Ships and Naval Weapons, Kiel, Germany	

ROOM PIANO		8:30-10:10
M27. THz Spectroscopy: Components and Applications I		
Session	Pawel Kopyt	
Chairs:	Fedir Sizov	<i>Institute of Semiconductor Physics Ukraine</i>
M27.1	342:” Narrow-gap MCT as THz Detector” F. Sizov ¹ , V. Dobrovolski ¹ , Z. Tsybrii ¹ , V. Zabudsky ¹ , S. Dvoretiskii ² , N. Mikhailov ² , ¹ V.E. Lashkaryov Institute of Semiconductor Physics, Kyiv, Ukraine, ² A.V. Rzhhanov Institute of Semiconductor Physics, Novosibirsk, Russian Federation	
M27.2	432:” 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. Umbertaliev ³ , E. G. Chizhevskiy ³ , I. I. Zasavitskiy ³ , N. N. Mikhailov ⁴ , S. A. Dvoretiskiy ⁴ , ¹ Institute for Physics of Microstructures of Russian Academy of Sciences, Nizhny Novgorod, Russian Federation, ² Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russian Federation, ³ Lebedev Physical Institute, Russian Academy of Sciences, Moscow, Russian Federation, ⁴ A.V.Rzhhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academy of Science, Novosibirsk, Russian Federation	
M27.3	400: “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	469:” 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	178: “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
Interactive Forum P4 (MIKON + IRS)		
Session	Manuel Rosa Zurera	
Chairs:		
P4.1(R)	477: “Demonstrator of the SDR-based Multistatic System For Localizing Different Sources of Emissions” K. P. Klinecicz, Warsaw University of Technology, Warsaw, Poland	
P4.2(R)	- 322: “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 , 1LLC “Navis-Ukraine”, Smila, Ukraine, ² Usikov Institute of Radiophysics and Electronics of National Academy of Sciences of	

	Ukraine, Kharkov, Ukraine, ³ Institute of Geophysics (IGP) Vietnam Academy of Science and Technology(VAST), Hanoi, Viet Nam
P4.3(R)	166: “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, Iran, ³ Isfahan University of Technology, Isfahan, Iran
P4.4(R)	216: “Optimal Sensor Configuration for Two Dimensional Source Localization Based on TDOA/FDOA Measurements” M. Hamdollahzadeh ¹ , S. Adelipour ² , F. Behnia ³ , ¹ Sharif University of Technology, Tehran, Iran, ² Sharif University of Technology, Tehran, Iran, ³ Sharif University of Technology, Tehran, Iran
P4.5(R)	204: “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)	160: “Fast Time-Domain Focusing For Low Frequency UWB Circular SAR Data” L. Chen, D. An, X. Huang, NUDT, Changsha, China
P4.7(R)	158: “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)	154: “Analysis of the Objects Images on the Sea Using Dempster-Shafer Theory” K. Bobkowska, Gdańsk University of Technology, Gdańsk, Poland
P4.9(R)	164: “Periodic Non-uniform Reconstruction of FMCW SAR Using Fractional Fourier Transform” Q. Xin, Z. Wang, J. Wan, Q. Zou, College of Electronic Science and Engineering, Changsha, China
P4.10(R)	476: “Real-time Mode Algorithm for the Front-Side-Looking SAR” K. Semenova, National Aviation University, Kyiv, Ukraine
P4.11(M)	- 450: “2D Photonic Crystal Filter With Dewdrop-Petal Structure” A.V. Vishnevsky, National Aviation University, Kiev, Ukraine
P4.12(M)	456: “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, Crete, Greece
P4.13(M)	389:” Substrate Optimization for a Planar Antenna of Terahertz Si Field Effect Transistor Detectors” D. B. 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, Warsaw, Poland, ³ Institute of Electron Technology, Warsaw, Poland
P4.14(M)	- 350:” Affordable Sub-THz Band-Pass Mesh Filters” P. Kopyt ¹ , B. Salski ¹ , P. Zagrajek ² , J. Marczewski ³ , ¹ Warsaw Univ. of Technology, Warsaw, Poland, ² Military Univ. of Technology, Warsaw, Poland, ³ Institute of Electron Technology, Warsaw, Poland
P4.15(M)	442:” 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, Montpellier, France, ² Laboratoire Charles Coulomb UMR 5221 CNRS-UM2, Montpellier, France
P4.16(M)	459:” 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, Warsaw, Poland, ⁴ Institute of Physics PAS, Warsaw, Poland
P4.17(M)	354: “A Synthesis Approach for Bandpass Filters with Arbitrary Transmission Zeros. Aspect of Solution by Linearization of Immittances” M. B. Zaradny, Wroclaw University of Technology, Wroclaw, Poland

P4.18(M)	338: "Microwave Detection Based on Magnetoresistance Effect in Spintronic Devices" W. Skowroński ¹ , S. Ziętek 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, Kraków, Poland, ² Singulus Technologies AG, Kahl am Main, Germany, ³ National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan
P4.19(R)	294: "Resource Management in Closely Spaced Multiposition Radar Systems" V. Vovk (National Aviation University, Kyiv, Ukraine), S. Stavtyskyi, V. Medvediev (Central Research Institute of Navigation and Control, Kyiv, Ukraine)
P4.20(M)	226: "Conformal Antennas with Coaxial Probe Feed" M. Bugaj, R. Przesmycki, M. Wnuk, J. Bugaj, Military University of Technology, Warsaw, Poland
P4.21(R)	- 444: "Quasi Horn Antenna Array for Ku Band Monopulse Radiation" A. K. Keskin, A. S. Turk(Yildiz Technical University, Istanbul, Turkey), M. A. Tulum (Neta Electronics Inc., Istanbul, Turkey)
P4.22(R)	206: "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	F. Gunes	
Chairs:	Krzysztof Wincza	<i>AGH University of Science and Technology</i>
M28.1	390: "Extending the Antenna Polygon for L-band" V. Závodný, Eldis Pardubice L.T.D., Pardubice, Czech Republic	
M28.2	465: "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, Warsaw, Poland, ² Warsaw University of Technology, Warsaw, Poland	
M28.3	471: "On Dual Polarised Probes for Near Field Antenna Measurements" C. van t Klooster, M. Hofman, Wroclaw University of Technology, Wroclaw, Poland	
M28.4	256: "Modeling of Paraboloidal Reflector Antenna with Displaced Radiators" I. Prudyus, L. Lazko, D. Mymrikov, Lviv Polytechnic National University, Lviv, Ukraine	

ROOM C		10:55-12:15
M29. Filter and CAD for Passive Components		
Session	Dimitri Kholodniak	<i>St. Petersburg Electrotechnical University</i>
Chairs:	Jerzy Mazur	<i>Gdansk University of Technology</i>
M29.1	407: "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. Groppe ² , M. Hein ² , J. Mueller ² , M. Hoffmann ² , R. Weigel ¹ , G. Fischer ¹ , A. Hagelauer ¹ , ¹ University of Erlangen-Nuremberg, Erlangen, Germany, ² University of Ilmenau, Ilmenau, Germany	
M29.2	106: "Fast and Precise Geometry Scaling of Miniaturized Microstrip Couplers with Unequal Power Split" S. Koziel, A. Bekasiewicz, Reykjavik University, Reykjavik, Iceland	
M29.3	- 377: "Coupling Matrix Synthesis for Lossy Filters by Optimization Using Fréchet Distance" A. Szwaba, T. Kacmajor, J. J. Michalski, SpaceForest, Gdynia, Poland	
M29.4	X. "An Electronically Tunable Lumped-element Bandpass Filter with Continuous Tuning of Center Frequency and Bandwidth" A. Baskakova, V. Turgaliev, D. Kholodnyak, Microwave Microelectronics Laboratory, Department of Microelectronics & Radio Engineering, St. Petersburg Electrotechnical University "LETI"	

ROOM D		10:55-12:15
R9. Signal Processing II		
Session	Chris Baker	

Chairs:	Ewa Świercz	
R9.1	369: “Application of CUDA Computing Technology in Radar Digital Signal Processing” T. Rogala, A. Kawalec, M. Szugajew, Military University of Technology, Warsaw, Poland	
R9.2	399: “Real Time Scan Conversion Implementation for High Resolution Radars” D. L. Gómez Pinzón ^{1,2} , J. M. Peña Espartero ² , ¹ Codaltec, Bogotá D.C, Colombia, ² Advanced Radar Technology, Madrid, Spain	
R9.3	438: “MIMO UWB Radar for Moving Target Tracking” J. Matuzas, B. Levitas, I. Naidionova, M. Drozdov, S. Jefremov, Geozondas JSC, Vilnius, Lithuania	
R9.4	253: “Block Adaptive Compressive Sensing for Distributed MIMO Radar in Clutter Environment” A. Abtahi ^{1,2} , S. Mohajer ^{1,2} , F. Marvasti ^{1,2} , ¹ Advanced Communications Research Institute (ACRI), Tehran, Iran, ² Sharif University of Technology, Tehran, Iran	

ROOM E		10:55-12:15
R10. SAR/GMTI		
Session	Mathias Weiss	
Chairs:	Piotr Kaniewski	
R10.1	- 504: “Layover Artifacts in Bistatic SAR Images” L. Wang, B. Yazici, Rensselaer Polytechnic Institute, Troy, United States	
R10.2	289: “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	- 298: “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	316: “Performance Analysis of HRWS/GMTI for Space-Based SAR Using Sparse Arrays” L. Rousseau ¹ , C. Gierull ² , J. Chouinard ¹ , ¹ Université Laval, Québec, Canada, ² Defence Research & Development Canada - Ottawa, Ottawa, Canada	
R10.5	427: “Moving Target Imaging Using Dual-Channel High Resolution 35 GHz SAR Radar” J. Drozdowicz, Warsaw University of Technology, Warszawa, Poland	

ROOM PIANO		10:55-12:15
M30 Spintronics		
Session	Shingo Tamaru	
Chairs:	Tomasz Stobiecki	<i>AGH University of Science and Technology</i>
M30.1	“Recent progress toward the use of spin torque oscillators in real electronics systems” <i>(Invited)</i> Shingo Tamaru	
M30.2	“Nonreciprocal properties of GHz frequency surface spin waves in nanopatterned ferromagnetic films” <i>(Invited)</i> Maciej Krawczyk	
M30.3	447: “Nonreciprocal Properties of GHz Frequency Surface Spin Waves in Nanopatterned Ferromagnetic Films” P. Gruszecki ¹ , J. Rychły ¹ , M. Mruczkiewicz ² , M. Krawczyk ¹ , ¹ Adam Mickiewicz University in Poznan, Poznan, Poland, ² Slovak Academy of Sciences, Bratislava, Slovak Republic	
M30.4	498: “Damping in Finmet Films Capped by Platinum” H. Głowiński ¹ , I. Gościańska ² , A. Krysztofik ² , J. Barnas ² , T. Stobiecki ³ , J. Dubowik ¹ , ¹ Institute of Molecular Physics, Polish Academy of Sciences, Poznan, Poland, ² A. Mickiewicz University, Poznan, Poland, ³ AGH University of Science and Technology, Krakow, Poland	

ROOM B		12:15-13:15 [Lunch time]
Commercial time		
Microwave Vision Group		

Per Noren	“Advanced techniques of antenna measurements”
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ROOM B		13:15-14:55
M31. Antennas measurements		
Session	Paweł Kabacik	
Chairs:	Wojciech Krzysztofik	<i>Wroclaw University of Technology</i>
M31.1	272: “Polarization Reconfigurable HMSIW U-Slot Antenna” P. Hubka, J. Lacik, Brno University of Technology, Brno, Czech Republic	
M31.2	101: „Novel Structure and Design of Compact UWB Slot Antenna” A. Bekasiewicz ^{1,2} , S. Koziel ^{1,2} , ¹ Reykjavik University, Reykjavik, Iceland, ² Gdansk University of Technology, Gdansk, Poland	
M32.3	332: “Waveguide Monopulse Summing-Differential System” E. Sędek ¹ , A. Jeziorski ² , R. Słomski ³ , ¹ Pit-Radwar S.A., Warsaw, Poland, ² Military University of Technology, Warsaw, Poland, ³ Warsaw, Poland	
M33.4	425: “Microstrip Dual band Millimeter-wave Antenna Array for UAV Applications” S. S. Siddiq, K. GS, T. Vishnu, N. Agnihotri, Dayananda Sagar College of Engineering, Bangalore, India	
M31.5	104: “Fast Geometry Scaling of UWB Band-Notch Antennas” S. Koziel ^{1,2} , A. Bekasiewicz ^{2,1} , ¹ Reykjavik University, Reykjavik, Iceland, ² Gdansk University of Technology, Gdansk, Poland	

ROOM C		13:15-14:55
M32. Filters and Dplxers		
Session	Richard Snyder	
Chairs:	Ken Tam	<i>University of Macau</i>
M32.1	240: “Integrated Microstrip Dplxers for Radio over Fiber” A. Nagy, T. Cseh, Z. Szalay, T. Berceli, Budapest University of Technology and Economics, Budapest, Hungary	
M32.2	386: “Narrowband Microstrip HTS Filter” A. Abramowicz ¹ , P. Gierlowski ² , M. Jaworski ² , ¹ Warsaw University of Technology, Warsaw, Poland, ² IF PAN, Warsaw, Poland	
M32.3	441: “Cascaded Loops Directional Filter with Transmission Zeroes for Multiplexing Applications” J. Sorocki, I. Piekarczyk, S. Gruszczynski, K. Wincza, AGH University of Science and Technology, Krakow, Poland	
M32.4	331: “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), Riyadh, Saudi Arabia, ² King Saud University (KSU), Riyadh, Saudi Arabia	
M32.5	384: “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), Riyadh, Saudi Arabia, ² King Saud University, Riyadh, Saudi Arabia	

ROOM D		13:15-14:55
R11. Signal Processing III		
Session	Dusan Kocur	
Chairs:	Mirosław Sankowski	
R11.1	315: “Application of the Reassignment of Time-Frequency Distributions to Doppler Radar Tomography Imaging of a Rotating Multi-Point Object” E. Swiercz, Białystok University of Technology, Białystok, Poland	

R11.2	180: “A Novel OFDM-MIMO Radar with Non-equidistant Subcarrier Interleaving and Compressed Sensing” G. Hakobyan ¹ , B. Yang ² , ¹ Robert Bosch GmbH, Renningen, Germany, ² University of Stuttgart, Stuttgart, Germany
R11.3	163: “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	297: “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, France, ² Mines ParisTech, Fontainebleau, France

ROOM E		13:15-14:55
R12. Waveform Design I		
Session	Jiri Vesely	
Chairs:	Tom Lukowski	
R12.1	212: “Cost Efficient Frequency Hopping Radar Waveform for Range and Doppler Estimation” B. Nuss ¹ , J. Fink ² , F. Jondral ² , ¹ Karlsruhe Institute of Technology, Karlsruhe, Germany, ² Karlsruhe Institute of Technology, Karlsruhe, Germany	
R12.2	169: “Power Efficiency of High Dynamic Range Noise Waveform” J. S. Kulpa, A. Kurowska, Warsaw University of Technology, Warsaw, Poland	
R12.3	267: “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, France, ² T�el�ecom SudParis, Evry, France	
R12.4	168: “Doppler Compensation for Binary Phase-Coded Radar Signals in Presence of Noise Jamming” Z. Matousek, J. Ochodnický, M. Babjak, J. Puttera, Armed Forces Academy of gen. M.R.Stefanik, Liptovský Mikuláš, Slovak Republic	

ROOM PIANO		13:15-14:55
M33. THz Spectroscopy: Components and Applications II		
Session	Wojciech Knap	<i>CNRS–University Montpellier</i>
Chairs:	Vladimir Vaks	<i>Institute for Physics of Microstructures</i>
M33.1	435:” Compact Room Temperature Terahertz Imaging: Towards On–Chip Integration” G. Valusis ¹ , L. Minkevicius ¹ , I. Kasalynas ¹ , R. Venckevicius ¹ , D. Seliuta ¹ , V. Tamosiunas ¹ , G. Raciukaitis ² , B. Voisiat ² , ¹ Center for Physical Sciences and Technology, Vilnius, Lithuania, ² Center for Physical Sciences and Technology, Vilnius, Lithuania	
M33.2	437: “Terahertz Detection by AlGaIn/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 UMR 5221 CNRS–Univ. Montpellier, Montpellier, France, ² University of Regensburg , Regensburg, Germany, ³ Institute of High Pressure Physics, Warsaw, Poland	
M33.3	416:” 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. Yatsunenkov ³ , ¹ Montpellier University and CNRS , Montpellier, France, ² Warsaw University of Technology , Warsaw, Poland, ³ Polish Academy of Sciences, Warsaw, Poland	
M33.4	439:” Diffractive Optics for GaN Terahertz Detectors Arrays” J. Suszek ¹ , M. Sypek ¹ , A. Siemion ¹ , A. Nowakowska-Siwińska ³ , P. Zagrajek ² , K. Szkudlarek ⁴ , G. Cywiński ⁴ , I. Yahniuk ⁴ , S. Yatsunenkov ⁴ , D. But ^{5,6} , D. Coquillat ⁵ , W. Knap ^{4,5} , ¹ Warsaw University of Technology, Warsaw, Poland, ² Military University of Technology, Warsaw, Poland, ³ TopGaN Ltd, Warsaw, Poland, ⁴ Institute of High Pressure Physics of Polish Academy of Sciences, Warsaw, Poland, ⁵ Montpellier University & CNRS, Montpellier, France, ⁶ NAN Kiev, Kiev, Ukraine	
M33.5	423:” 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, Nizhny Novgorod, Russian Federation, ² Lobachevsky University, Nizhny Novgorod, Russian Federation	

ROOM A		14:55 – 15:40
Interactive Forum P5 (IRS)		
Session Chairs:	Rafał Lech Oleg Drobakhin	<i>Gdansk University of Technology</i>
P5.1	422: “Numerical Analysis of Signal Distribution Propagation in Radar Detection Procedures” K. Jedrzejewski, Warsaw University of Technology, Warsaw, Poland	
P5.2	282: “The Identification of Radar Signals by Histogram Approximation Function” J. Zak, M. Vach, Czech University of Life Sciences, Prague, Czech Republic	
P5.3	263: “PC Based Real-Time Radar Environment Simulation” M. Bantle, G. Schumacher, Airbus DS Electronics and Border Security GmbH, Ulm, Germany	
P5.4	157: “Three Dimensional Electromagnetic Model Guided Scattering Center Extraction” C. Ma, G. Wen, J. Zhong, X. Yang, B. Ding, National University of Defense Technology, Changsha, China	
P5.5	140: “Range Sidelobe Suppression Based on Gold Sequence” P. Qiu, Z. Wang, P. Cheng, College of Electronic Science and Engineering, Changsha, China	
P5.6	218: “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, United States, ² California Institute of Technology, Pasadena, United States	
P5.7	117: “Waveform Generation Employing Iterative CORDIC Algorithm Method” M. Gaurav, A. Dambal, DRDO, Bangalore, India	
P5.8	337: “Analytical Coupling Simulation on Radar Targets” R. Diewald, Hochschule Trier, Trier, Germany	
P5.9	373: “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	
P5.10	309: “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, Kyiv, Ukraine, ² JSC “Ukrspetstechnika”, Kyiv, Ukraine	
P5.11	266: “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, Kaltenkirchen, Germany	
P5.12	138: “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	
P5.13	- 142: “Binomial Splitting Gaussian Mixture Implementation of the Unscented Kalman Probability Hypothesis Density Filter” P. Jing ¹ , S. Xu ¹ , R. Tu ² , Z. Chen ¹ , ¹ National University of Defense Technology, Changsha, China, ² National University of Defense Technology, Changsha, China	
P5.14	433: “Detecting Small Moving Underwater Objects Using Scanning Sonar in Waterside Surveillance and Complex Security Solutions” N. Wawrzyniak, G. Zaniewicz, Maritime University of Szczecin, Szczecin, Poland	
P5.15	391: “Informational Reliability of Radar System Operator” O. Kozhokhina ¹ , L. Blahaia ² , S. Rudas ³ , O. Alexeev ⁴ , ¹ National aviation university, Kyiv, Ukraine, ² National aviation university, Kyiv, Ukraine, ³ National aviation university, Kyiv, Ukraine, ⁴ National aviation university, Kyiv, Ukraine	

P5.16	323: “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
P5.17	320: “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., Szczecin, Poland, ² Maritime University of Szczecin, Szczecin, Poland
P5.18	- 302: “Location Determination of Radar Sensors by Using LIDAR data” Lubczonek ^{1,2} , ¹ Maritime University of Szczecin, Szczecin, Poland, ² Marine Technology Ltd., Szczecin, Poland
P5.19	221: “Safety&BIT on ATC Radar Processing: T. Huber-Obst, Airbus DS Electronics and Border Security GmbH, Ulm, Germany
P5.20	278: “Use of Different CHAFF Materials During Electro Magnetic Jamming Exercise” Zak, M. Vach, Czech University of Life Sciences, Prague, Czech Republic
P5.21	279: “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, Szczecin, Poland, ² Marine Technology Ltd., Szczecin, Poland
P5.22	274: “Kurtosis Based Approach for Detection of Targets in Noise” Schmidt ¹ , C. Rügheimer ¹ , F. Particke ¹ , T. Mahr ¹ , H. Appel ² , H. Kölle ² , ¹ Technische Hochschule Nürnberg Georg Simon Ohm, Nürnberg, Germany, ² Airbus DS Electronics and Border Security GmbH, Ulm, Germany

ROOM B/C/		15:40-17:00
MIKON PLENARY SESSION – CLOSING CEREMONY		
Session	Slawomir Gruszczynski	<i>AGH University of Science and Technology</i>
Chairs:	Robert Weigel	<i>Institute for Electronics Engineering, Erlangen</i>
Invited	Sherif Sayed Ahmed: “A New Era for Microwave Imaging Systems”	
Invited	Herbert Zirath: “Design of millimeterwave multifunction integrated circuits for data communication and remote sensing applications”	

ROOM D		15:40-17:00
R13. ISAR		
Session	Stephane Kemkemian	<i>Thales Airborne Systems</i>
Chairs:	Jacek Misiurewicz	<i>Warsaw University of Technology</i>
R13.1	243: “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, Pisa, Italy, ² Scuola Superiore Sant’Anna, Pisa, Italy	
R13.2	387: “High Resolution Inverse Synthetic Aperture Radar Demonstrator utilizing low-Terahertz Band” P. Dzwonkowski, Warsaw University of Technology, Warsaw, Poland	
R13.3	250: “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	217: “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, United States, ² California Institute of Technology, Pasadena, United States	

ROOM E		15:40-17:00
R14. Waveform Design II		

Session	Gaspare Galati	<i>University of Rome Tor Vergata</i>
Chairs:	Oleg Krasnov	<i>Delft University of Technology</i>
R14.1	283: “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, France, ² SONDRA - CentraleSupélec, Gif-sur-Yvette, France, ³ ONERA, Palaiseau, France	
R14.2	269: “Theory and Practice of Alltop Waveform” R. N. Gourova ¹ , R. Pribic ² , A. Yarovoy ¹ , ¹ Delft University of Technology, Delft, Netherlands, ² Thales Nederland, Delft, Netherlands	
R14.3	358: “Fast Algorithm for Polynomial E-Pulse Synthesis” D. Filimonova, T. Shevgunov, Moscow Aviation Institute (National Research University), Moscow, Russian Federation	
R14.4	418: “Predistorter Based K-Band FMCW Radar For Vehicle Speed Detection” H. Ozturk ¹ , K. Yegin ² , ¹ Tubitak , Kocaeli, Turkey, ² Ege University, Izmir, Turkey	

12.05.2016 (Thursday)

ROOM B		8:30-10:10
R15. FS: Noise Radar		
Session	Konstantin Lukin	<i>National Academy of Science of the Ukraine</i>
Chairs:	Andy Stove	<i>University of Birmingham</i>
R15.1	132: “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. Maślowski ⁴ , ¹ University of Birmingham, Birmingham, United Kingdom, 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, Warsaw, Poland	

R15.2	129: “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, Birmingham, United Kingdom, ² Tor Vergata University, Rome, Italy, ³ Fraunhofer-Institut für Hochfrequenzphysik und Radartechnik FHR, Wachtberg, Germany, ⁴ Turkish Navy Research Center Command, Turkey, Turkey, ⁵ National Academy of Science of the Ukraine, Kharkov, Ukraine
R15.3	130: “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, Birmingham, United Kingdom, ² Tor Vergata University, Rome, Italy
R15.4	457: “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	123: “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, Jerzy Pietrasinski	<i>Military University of Technology</i>
R16.1	197: “Through-the-Wall Imaging Radar Experiments Based on 8-Element Vivaldi Radar Sensor” B. Yilmaz ¹ , C. Ozdemir ² , ¹ Mersin University, Mersin, Turkey, ² Mersin University, Mersin, Turkey	
R16.2	188: “Tree-Penetrating Imaging Focusing: Anexperimental Study and Concept Evaluation” S. Gökkan ^{1,2} , C. Ozdemir ¹ , B. Yılmaz ¹ , ¹ Mersin University, Mersin, Turkey, ² Mersin University, Mersin, Turkey	
R16.3	412: “Design and Validation of Slot Spiral Antenna for Stepped Frequency Ground Penetrating Radar” P. P. Patnaik ^{1,2} , K. Arunachalam ^{1,2} , C. V. Krishnamurthy ^{2,1} , ¹ Indian Institute of Technology, Chennai, India, ² Indian Institute of Technology, Chennai, India	
R16.4	258: “A Method for Eliminating Signals from False Targets in MUSIC Based GPR Range Profile” P. Kaczmarek, J. Pietrasinski, Military University of Technology, Warsaw, Poland	
R16.5	“Simulation Model of HF-band Airborne Ground Penetrating Radar” V.T. Lobach, M V. Potipak, V.V. Bakhchevnikov, Southern Federal University, Taganrog, Russian Federation	

ROOM D		8:30-10:10
R17. FS: Forward Scattering Radar		
Session Chairs:	Marina Gashinova Edward Şedek	<i>University of Birmingham</i> <i>PIT-RADWAR</i>
R17.1	285: “Target Direct Position Determination In 2D CW Forward Scatter Radar” M. Hamdollahzadeh, S. Adelipour, F. Behnia, M. M. Nayebe, Sharif University of Technology, Tehran, Iran	
R17.2	248: “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, Sofia, Bulgaria, ² ULSIT, Sofia, Bulgaria, ³ IICT, Sofia, Bulgaria, ⁴ UNWE, Sofia, Bulgaria, ⁵ University of Birmingham, UK, ⁶ TU Hamburg-Harburg, Hamburg, Germany, ⁷ TU Warsaw, Warsaw, Poland, ⁸ TU Delft, Delft, Netherlands	
R17.3	301: “FSR Velocity Estimation Using Spectrogram” A. De Luca, M. Contu, S. Hristov, L. Daniel, M. Gashinova, M. Cherniakov, University of Birmingham, Birmingham, UK	
R17.4	219: “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", Rome, Italy	
R17.5	126: “Signal Modeling and Experimental Verification in GNSS Forward Scatter Radar” C. Liu ¹ , C. Hu ¹ , L. Wang ¹ , T. Long ² , T. Zeng ² , ¹ Beijing Institute of Technology, Beijing, China, ² Beijing Institute of Technology, Beijing, China	

ROOM D		8:30-10:10
R17. FS: Forward Scattering Radar		
Session	Marina Gashinowa	<i>University of Birmingham</i>
Chairs:	Edward Şedek	<i>PIT-RADWAR</i>
R17.1	285: “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	248: “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, Sofia, Bulgaria, ² ULSIT, Sofia, Bulgaria, ³ IICT, Sofia, Bulgaria, ⁴ UNWE, Sofia, Bulgaria, ⁵ University of Birmingham, UK, ⁶ TU Hamburg-Harburg, Hamburg, Germany, ⁷ TU Warsaw, Warsaw, Poland, ⁸ TU Delft, Delft, Netherlands	
R17.3	301: “FSR Velocity Estimation Using Spectrogram” A. De Luca, M. Contu, S. Hristov, L. Daniel, M. Gashinova, M. Cherniakov, University of Birmingham, Birmingham, UK	
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R17.5	126: “Signal Modeling and Experimental Verification in GNSS Forward Scatter Radar” C. Liu ¹ , C. Hu ¹ , L. Wang ¹ , T. Long ² , T. Zeng ² , ¹ Beijing Institute of Technology, Beijing, China, ² Beijing Institute of Technology, Beijing, China	

ROOM B		10:55-12:15
R18. Scanned Arrays		
Session	Maria Pilar Jarabo-Amores	
Chairs:	Pierfrancesco Lombardo	<i>SAPIENZA University of Rome</i>
R18.1	230: “Signal Processing in Polish C-band Electronically Scanned Array Radars: Past, Present and Future” M. Meller, M. Sankowski, E. Blok, M. Kwiatkowski, PIT-Radwar S.A., Gdańsk, Poland	
R18.2	118: “Optimizing Electronically Beam Steering Time Of 10000 Elements Passive Phased Array Antenna Using FPGA” R. P. Rathore, LRDE, Bangalore, India	
R18.3	286: “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, France, ² IRCCyN, Nantes, France	
R18.4	308: “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	Reda Zemhari	Fraunhofer FKIE
Chairs:	Andrzej Witczak	
R19.1	366: “Maneuvering Target Tracking in Wide Area Multilateration Radar System” A. Szullo, R. Seller, Budapest University of Technology and Economics, Budapest, Hungary	
R19.2	280: “Tracking Quality Monitoring Based on Information Geometry and Geodesic Shooting” M. Pilté, F. Barbaresco, Thales, Limours, France	
R19.3	133: “Design of An IMMNNJPDA Tracker for HFSWR” Z. Ding, P. Moo, DRDC Ottawa, Ottawa, Canada	
R19.4	110: “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. Applications		
Session	Myriam Nouvel	
Chairs:	Zbigniew Czekala	
R20.1	246: “Optimized Algorithm for Solving Phase Interferometer Ambiguity” S. V. Doan, J. Vesely, P. Janu, P. Hubacek, L. X. Tran, Faculty of Military Technology, Univ. of Defence, Brno, Czech Republic	
R20.2	245: “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, France, ² ENSTA Bretagne, Brest, France	
R20.3	189: “Angle of Arrival Estimator Based on Artificial Neural Networks” E. N. Efimov, T. Y. Shevgunov, Moscow Aviation Institute (National Research University), Moscow, Russian Federation	
R20.4	171: “Instantaneous DoA Estimation for a Single Source” I. D. Chyrka, Bulgarian Academy of Sciences, Sofia, Bulgaria	

ROOM B		13:35-14:35
R21 DoA/ Multilateration		
Session	Yulia Averyanova	<i>National Aviation University</i>
Chairs:	Paolo Marques	
R21.1	458: “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, Italy, ² University of Florence, Florence, Italy	
R21.2	281: “Investigation on Radar-Based Applications for mini-UAS and MAVs” A. F. Scannapieco, A. Renga, A. Moccia, University of Naples "Federico II", Naples, Italy	
R21.3	127: “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	436: “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, Rome, Italy, ² MetaSensing BV, Noordwijk, Netherlands	

ROOM C		13:35-14:35
R22. Classification/ Micro Doppler		
Session	Nadav Levanon	
Chairs:	Felix Yanovsky	<i>National Aviation University Ukraine</i>
R22.1	287: “Micro-Doppler-Based Classification Study on the Detections of Aerial Targets and Wind Turbines” O. Karabayır, S. M. Yücedağ, O. M. Yücedağ, A. F. Coşkun, H. A. Serim, The Scientific and Technological Research Council of Turkey, Kocaeli, Turkey	
R22.2	352: “Robust Airborne Target Recognition Based on Recurrence Plot Quantification of Micro-Doppler Radar Signatures” M. Johari ¹ , M. Nayebi ² , ¹ Sharif University of Technology, Tehran, Iran, ² Sharif University of Technology, Tehran, Iran	
R22.3	318: “Target Classification in Perimeter Protection with a Micro-Doppler Radar” S. Björklund ^{1,2} , ¹ Swedish Defence Research Agency (FOI), Linköping, Sweden, ² Blekinge Institute of Tech., Karlskrona, Sweden	
R22.4	167: “Classification of Moving Targets Using Mirco-Doppler Radar” O. Lam ¹ , R. Kulke ² , M. Hägelen ² , G. Möllenbeck ² , ¹ Hochschule Rhein-Waal, Kamp-Lintfort, Germany, ² IMST GmbH, Kamp-Lintfort, Germany	

ROOM D		13:35-14:35
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R23. Quantum Radar – Tutorial	
	Konstantin Lukin (presenter)

ROOM B/C/D		14:45-15:30
IRS PLENARY SESSION – CLOSING SESSION		
Session	Hermann Rohling	<i>Technische Universitaet Hamburg</i>
Chairs:	Krzysztof Kulpa	<i>Warsaw University of Technology</i>
Invited	Istvan Balajti, Ferenc Hajdú, “Radar developments in Hungary during World War II”	