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S01 : Power Amplifiers

Chairs: Roberto Quaglia (Cardiff University) and Fabian Thome (Fraunhofer IAF)

09:00–10:40, Monday, March 12, 2018, Room K9

PAGE 1 S01-1 09:00	Analysis and Characterization of a Load Modulated Balanced Amplifier for Base-Station Applications (Roberto Quaglia , Jeff Powell , Dan Shepphard , Paul Tasker , Steve Cripps)
PAGE 5 S01-2 09:20	A 50W Wideband Hybrid Ku-Band GaN-HEMT Power Amplifier for Satellite Communication (Daniel Maassen , Felix Rautschke , Georg Boeck)
PAGE 9 S01-3 09:40	A 5W AlGaIn/GaN Power Amplifier MMIC for 25–27GHz Downlink Applications (S. Samis , Christian Friesicke , Philip Feuerschütz , Roger Lozar , Thomas Maier , Peter Brückner , Rüdiger Quay , Arne F. Jacob)
PAGE 13 S01-4 10:00	Two Q-Band Power Amplifier MMICs in 100nm AlGaIn/GaN HEMT Technology (Philip Feuerschütz , Christian Friesicke , Roger Lozar , Sandrine Wagner , Thomas Maier , Peter Brückner , Rüdiger Quay , Arne F. Jacob)
PAGE 17 S01-5 10:20	A 95GHz Bandwidth 12dBm Output Power Distributed Amplifier in InP-DHBT Technology for Optoelectronic Applications (T. Shivan , N. Weimann , M. Hossain , T. Johansen , D. Stoppel , S. Schulz , O. Ostinelli , R. Doerner , C.R. Bolognesi , Viktor Krozer , W. Heinrich)

S02 : Antennas and Arrays

Chairs: Arne F Jacob (Technische Universität Hamburg-Harburg) and Michael Schneider (Airbus)

09:00–10:40, Monday, March 12, 2018, Room Runder Saal

PAGE 21 S02-1 09:00	X-Band Downlink Antenna Characterised by Isoflux Gain Mask (Michael Kilian , Christian Hartwanger , Andreas Schinagl-Weiß , Michael Schneider)
PAGE 25 S02-2 09:20	Dual-Polarized Dual-Frequency Antenna Module for a Maritime Phased Array Radar (Stefan Radziejewski , Nils Hansen , Jan-Philip Mohncke , Arne F. Jacob)
PAGE 29 S02-3 09:40	A Pattern Reconfigurable Antenna System for Automotive MIMO Applications (Jerzy Kowalewski , Ibrahim Mehinovic , Sevda Abadpour , Jonathan Mayer , Thomas Zwick)
PAGE 33 S02-4 10:00	A Non-Reciprocal Receive Array with Large Beamwidth and Gain (Jonas Kornprobst , Thomas J. Mittermaier , Thomas F. Eibert)
PAGE 36 S02-5 10:20	Design, Simulation and Fabrication of Low Cost UHF RFID Reader Antenna for Hospital Applications (Vinicius Oliveira , Glauco Fontgalland , Raquel Rodrigues , Tagleorge Silveira , Clesio Melo , Isabel Fontgalland)

PO1 : Interactive Poster Session 1

Chair: Christian Friesicke (Fraunhofer IAF)

11:00–12:40, Monday, March 12, 2018, Room Hall

N/A PO1-1	Novel Microstrip Bandpass Filter with Wide Stopband (<i>Mohamad Farhat, Bal Virdee</i>)
PAGE 43 PO1-2	Methodology of Isolation Improvement for an Absorptive Switch (<i>Muh-Dey Wei, Renato Negra</i>)
PAGE 47 PO1-3	A D-Band SPDT Switch Utilizing Reverse-Saturated SiGe HBTs for Dicke-Radiometers (<i>Barbaros Cetindogan, Berkutug Ustundag, Esref Turkmen, Matthias Wietstruck, Mehmet Kaynak, Yasar Gurbuz</i>)
PAGE 51 PO1-4	Digitally Controlled Vector Modulator SiGe MMIC for Millimeter-Wave Phased Array Applications (<i>Mikko Kantanen, Jan Holmberg, Mikko Varonen, Arto Rantala</i>)
PAGE 55 PO1-5	Low-Power Multiband Hybrid VCO for 77/81GHz FMCW Long Range Radar Applications (<i>Erkan Bayram, Oner Hanay, Renato Negra</i>)
PAGE 59 PO1-6	An 8-Channel Baseband Data Acquisition Platform for Digital Beamforming Radars (<i>Aly Marnach, Simon Müller, Andreas R. Diewald</i>)
PAGE 63 PO1-7	Thorough Analysis of Multipath Propagation Effects for Radar Applications in the Vehicle Interior (<i>Andreas R. Diewald, Andreas Fox, Dimitri Tatarinov</i>)

SP1 : Special Session — FOR MUSIK — Multiphysical Synthesis and Integration of Complex High-Frequency Circuits

Chair: Uwe Stehr (Technische Universität Ilmenau)

11:00–12:40, Monday, March 12, 2018, Room K2-4

PAGE 67 SP1-1 11:00	Multiphysical Design Methodology for the Heterogeneous Integration of an RF Receiver (<i>V. Silva Cortes, U. Stehr, J. Stegner, J. Nowak, Matthias A. Hein, R. Sommer, Georg Fischer, Amelie Hagelauer</i>)
PAGE 71 SP1-2 11:20	Design and Implementation of a MEMS-Based RF Oscillator on a Unique Silicon-Ceramic Composite Substrate (<i>J. Stegner, M. Fischer, S. Gropp, U. Stehr, J. Müller, M. Hoffmann, Matthias A. Hein</i>)
PAGE 75 SP1-3 11:40	Multiphysical Design of Compact RF Modules on a Silicon-Ceramics Substrate (<i>U. Stehr, J. Stegner, M. Fischer, S. Gropp, J. Müller, M. Hoffmann, Matthias A. Hein</i>)
PAGE 79 SP1-4 12:00	Thermal Modeling and Measurement of a Power Amplifier Module for a Silicon-Ceramic Substrate (<i>A. Frank, V. Silva Cortes, Steffen Michael, Amelie Hagelauer, Georg Fischer</i>)
PAGE 83 SP1-5 12:20	Application of X-Parameters in Studying Nonlinearities in BAW and SAW Filters (<i>V. Chauhan, Y. Liang, Y. Liao, V. Silva Cortes, Robert Weigel, Amelie Hagelauer</i>)

S03 : Radar Components and Systems

Chairs: Thomas F. Eibert (Technische Universität München) and Viktor Krozer (Goethe-Universität Frankfurt)

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S03-1
11:00 **Cross-Polarized Planar Reflector for Polarimetric Radar Calibration at 77GHz**
(Tristan Visentin, Rossen Michev, Jürgen Hasch, Thomas Zwick)
- PAGE 91
S03-2
11:20 **A Liquid Crystal Based Tunable Polarization Selector in a Microwave Imaging Radiometer**
(Matthias Nickel, Christian Schuster, Holger Maune, Rolf Jakoby, Stephan Dill, Markus Peichl)
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S03-3
11:40 **A Four-Channel Radar System for Rear Seat Occupancy Detection in the 24GHz ISM Band**
(M. Hoffmann, Dimitri Tatarinov, J. Landwehr, Andreas R. Diewald)
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S03-4
12:00 **Motion Sensing of a Wind Turbine Prototype Using a Bistatic FMCW Doppler Radar Sensor**
(Jochen Moll, Rahmi Salman, Dmitry Pozdniakov, Andreas Nuber, Herbert Friedmann, Philip Arnold, Moritz Mälzer, Viktor Krozer)
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S03-5
12:20 **Radar-Based Altitude Over Ground Estimation of UAVs**
(Markus Schartel, Ralf Burr, Pirmin Schoeder, Gilberto Rossi, Philipp Hügler, Winfried Mayer, Christian Waldschmidt)
-

SP2 : Special Session — FOR BATS — Low-Power Telemetry and Locating Systems

Chairs: Thorsten Nowak (FAU Erlangen-Nürnberg) and Robert Weigel (FAU Erlangen-Nürnberg)

16:00–17:40, Monday, March 12, 2018, Room K2-4

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SP2-1
16:00 **Power Management Unit for a Self-Sustaining Low Power Wide Area (LPWA) Base Station**
(Michael Schadhauer, Jörg Robert, Albert Heuberger)
- PAGE 111
SP2-2
16:20 **LPWAN Occupancy Model Parameter Identification for License Exempt Sub-GHz Frequency Bands**
(Sebastian Rauh, Jörg Robert, Michael Schadhauer, Albert Heuberger)
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SP2-3
16:40 **Simultaneous Position and Channel Parameter Estimation Applying Adaptive Kalman Filters**
(Thorsten Nowak, Markus Hartmann, Jörn Thielecke)
- PAGE 119
SP2-4
17:00 **Improved Localization Method in a WSN by Using Frequency Diversity and a Channel Model**
(Markus Hartmann, Thorsten Nowak, Jörg Robert, Jörn Thielecke, Albert Heuberger)
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SP2-5
17:20 **Enhanced Mobile Node Design for Small Size Animal Borne Wireless Sensor Nodes with Encounter Detection and Localization**
(Niklas Duda, Robert Weigel, Alexander Koelpin)

S04 : Filters

Chairs: Michael Höft (Christian-Albrechts-Universität zu Kiel) and Holger Maune (Technische Universität Darmstadt)

16:00–17:20, Monday, March 12, 2018, Room K9

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S04-1
16:00 **Direct-Coupled Resonator Filters Based on Foreshortened Coaxial Transmission Line Resonators**
([Joerg Schoebel](#), [Carsten Monka](#), [Jan Fahlbusch](#))
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S04-2
16:20 **A Compact Half-Mode Substrate Integrated Waveguide Filter Based on a Circular Resonator**
([Ahmad Bader Alothman Alterkawi](#), [Mustafa S. Bakr](#), [Reinhard Teschl](#), [Wolfgang Bösch](#), [Maurizio Bozzi](#))
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S04-3
16:40 **Fast and Accurate Tuning of a Cross-Coupled Split-Ring Resonator Filter**
([Christian Schuster](#), [Ersin Polat](#), [Rolf Jakoby](#), [Holger Maune](#), [Daniel Miek](#), [Michael Höft](#))
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S04-4
17:00 **Frequency Agile Filter for Image Frequency Rejection in an Adjustable Receiver Frontend**
([Thomas Lautenbacher](#), [Georg Fischer](#), [Matthias Fehr](#), [Robert Weigel](#), [Alexander Koelpin](#))
-

S05 : mm-Wave Antennas and Systems

Chairs: Dirk Heberling (RWTH Aachen University) and Jan Hesselbarth (Universität Stuttgart)

16:00–17:40, Monday, March 12, 2018, Room Runder Saal

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S05-1
16:00 **On-Chip Mounted Millimeter-Wave Dielectric Resonator Antenna**
([Zunnurain Ahmad](#), [Jan Hesselbarth](#))
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S05-2
16:20 **Millimeterwave Dielectric Rod Antenna with a Circuit Board Surface Mount Feed**
([Zunnurain Ahmad](#), [Jan Hesselbarth](#))
- PAGE 148
S05-3
16:40 **A 60GHz Circularly Polarized Antenna Array for Line-of-Sight Train-to-Train Communication**
([Amar Al-Bassam](#), [Wasim Alshrafi](#), [Dirk Heberling](#))
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S05-4
17:00 **Design of PCB Leaky-Wave Antennas for Wide Angle Beam Steering**
([Kyriakos Neophytou](#), [Stavros Iezekiel](#), [Matthias Steeg](#), [Andreas Stöhr](#))
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S05-5
17:20 **Low-Latency GbE 60GHz TDD Transceiver Using SiGe-RFICs and PCB Leaky-Wave Antennas**
([Matthias Steeg](#), [Mason Lange](#), [Andreas Stöhr](#), [Yigal Leiba](#))

S06: Characterization and Modeling

Chairs: Matthias Rudolph (Brandenburgische Technische Universität) and Dirk Schwantuschke (Fraunhofer IAF)

08:30–09:50, Tuesday, March 13, 2018, Room K9

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S06-1
08:30 **Crosstalk Analysis and Correction in On-Wafer Measurements at WR-3 Band Frequencies**
(D. Müller, F. Boes, Axel Tessmann, Arnulf Leuther, Thomas Zwick, Ingmar Kallfass)
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S06-2
08:50 **Chalmers GaN HEMT Charge Model Revisited**
(Peng Luo, Frank Schnieder, Matthias Rudolph)
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S06-3
09:10 **Low-Frequency Dispersion and State Dependency in Modern Microwave III-V HEMTs**
(Friedbert van Raay, Dirk Schwantuschke, Arnulf Leuther, Peter Brückner, Detlef Peschel, Rüdiger Quay, Michael Schlechtweg)
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S06-4
09:30 **An Electronically Tuneable Inductance with Extended Frequency Range**
(S. Loracher, K. Blau, U. Stehr, Matthias A. Hein)
-

S07: Antenna Components and Surface Structures

Chairs: Matthias Hein (Technische Universität Ilmenau) and Peter Knott (Fraunhofer FHR)

08:30–09:30, Tuesday, March 13, 2018, Room Runder Saal

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S07-1
08:30 **Four Channel Waveguide Rotary Joint**
(Andreas Schinagl-Weiß, Norbert Nathrath, Michael Kilian, Michael Schneider)
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S07-2
08:50 **Self-Interference Mitigation in Full-Duplex Base-Station Using Dual Polarized Reflect-Array**
(Nidal Zarifeh, Mai Alissa, Maher Khaliel, Thomas Kaiser)
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S07-3
09:10 **A Miniaturized Frequency Selective Surface Sub-Reflector for X and Ku-Bands**
(Safiullah Khan, Thomas F. Eibert)
-

PO2: Interactive Poster Session 2

Chair: Christian Friesicke (Fraunhofer IAF)

10:10–11:50, Tuesday, March 13, 2018, Room Hall

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PO2-1 **A Line of 4–40GHz GaAs Low Noise Medium Power Amplifiers for SDH Relay Stations**
(Oleg Bondarev, Denis Mirvoda, Alexey Kosogor, Yuri Tikhov)
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PO2-2 **Doherty Power Amplifier in 28nm CMOS for 5G Applications**
(Ahmed Hamed, Ahmed Aref, Mohamed Saeed, Renato Negra)
- PAGE 195
PO2-3 **Eigenvalue Analysis of a Triangular Corrugated Coaxial Cavity with Misaligned Inner Rod**
(S. Yuvaraj, Delphine Alphonsa Jose, Sukwinder Singh, Madan Singh Chauhan, M.V. Kartikeyan)
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PO2-4 **Development of a Planar Microwave Resonator Based Wetness Sensor**
(Oluwatosin J. Babarinde, Alessandra Petrocchi, Vladimir Volskiy, Ilja Ocket, Dominique Schreurs)
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PO2-5 **A Calibration Method for Hybrid Technique Based on CMA with Clipping in MIMO-OFDM System**
(Rania Mahmoud, Wael Abd Ellatif, Osama Gaafar, Darwish Abd El Aziz)
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PO2-6 **Simulation and Design of Koch Fractal CPW Antennas**
(Luis F.V.T. da Costa, Adaildo G. D'Assunção, Edwin L.F. Barreto)
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PO2-7 **Compact Planar Folded Monopole Antenna with Coupling Mechanism for Quad ISM Band, GNSS and UMTS Applications**
(Ali Seleki, Ceyhan Turkmen, Mustafa Secmen)
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PO2-8 **Numerical Analysis of Meandered Line Based Uniform Antenna Array**
(Prasetyono Hari Mukti, Helmut Schreiber, Andreas Gruber, Helmut Paulitsch, Wolfgang Bösch)

S08: Microwave Sensors

Chairs: Rolf Jakoby (Technische Universität Darmstadt) and Alexander Koelpin (Brandenburgische Technische Universität)
13:40–15:20, Tuesday, March 13, 2018, Room K9

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S08-1
13:40 **Microwave Impedance Sensors for the Dielectric Characterization of Liquids**
(Aleksandar Savić, Nora Meyne, Arne F. Jacob)
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S08-2
14:00 **Fast Dual-Synthesizer for Six-Port in-situ Linearization in the 2.4GHz ISM-Band**
(Benedict Scheiner, Fabian Lurz, Fabian Michler, Stefan Lindner, Sarah Linz, Robert Weigel, Alexander Koelpin)
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S08-3
14:20 **Passive Chipless Wireless Pressure Sensor for Harsh and Reflective Environments**
(Peter Schumacher, Christian Schuster, Alejandro Jiménez-Sáez, Martin Schüßler, Rolf Jakoby)
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S08-4
14:40 **24GHz RFID Transponder Frontend with an Equal Gain Baseband Combining for Industry 4.0 Applications**
(Bernard Lüers, Bernd Geck, Dirk Manteuffel)
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S08-5
15:00 **An Advanced High-Temperature Stable Multipole Resonance Probe for Industry Compatible Plasma Diagnostics**
(Dennis Pohle, Christian Schulz, Ilona Rolfes, Moritz Oberberg, Peter Awakowicz, Alexandra Serwa, Peter Uhlig)
-

S09: Integrated Circuits

Chairs: Ingmar Kallfass (Universität Stuttgart) and Amelie Hagelauer (FAU Erlangen-Nürnberg)
13:40–15:00, Tuesday, March 13, 2018, Room Runder Saal

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13:40 **A Highly Integrated Low-Power 400MHz RF Receiver in 0.13 μ m CMOS for Medical Applications**
(Sherif A. Saleh Mohamed, Ghada Hamdy Ibrahim)
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S09-2
14:00 **A Low Noise Figure K-Band Receiver in 130nm CMOS**
(J. Dang, B. Meinerzhagen, S. Brückner, Joerg Schoebel, A. Noculak, Renato Negra)
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S09-3
14:20 **Investigation of Differential Broadband Amplifiers in Normally-On mHEMT Technology**
(Laurenz John, Thomas Merkle, Christian Friesicke, Axel Tessmann, Arnulf Leuther, Michael Schlechtweg, Thomas Zwick)
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14:40 **Mixer-Based Parallel Frequency Generation in 65nm CMOS for FBMC Transmitters**
(Elmira Moussavi, Oner Hanay, Renato Negra)

SP3 : Special Session — SFB MARIE — Mobile Material Characterization and Location by Electromagnetic Sensing

Chairs: Ullrich Pfeiffer (Bergische Universität Wuppertal) and Ilona Rolfes (Ruhr-Universität Bochum)

15:40–17:40, Tuesday, March 13, 2018, Room K2-4

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15:40 **Simulation and Optimization of Post-Wall Waveguide Based Compact Circuits for Micro and Millimeter Waves**
(Vakhtang Jandieri, Daniel Erni, Hiroshi Maeda, Kiyotoshi Yasumoto, Arkadi Akopiani)
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SP3-2
16:00 **Spatially Modulated High Impedance Surface Based on a Multilayer Approach**
(Benedikt Sievert, Daniel Erni, Andreas Rennings)
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SP3-3
16:20 **Hardware-Accelerated Embedded SAR Processor for Realtime FMCW Radar Applications**
(Jonas Wagner, Jan Barowski, Tobias Kalb, Ilona Rolfes, Diana Göhringer)
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SP3-4
16:40 **Chipless Tags Infrastructure Based Localization in Indoor Environments**
(Mohammed El-Absi, Ashraf Abuelhaija, Ali Al-haj Abbas, Feng Zheng, Klaus Solbach, Thomas Kaiser)
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17:00 **Investigation of the Transient EM Scattering of a Dielectric Resonator**
(Ali Al-haj Abbas, Ashraf Abuelhaija, Klaus Solbach)
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SP3-6
17:20 **Terahertz Near Field Coupling for Integrating III-V Photodiodes on Silicon**
(Sebastian Dülme, Beshar Khani, Vitaly Rymanov, Peng Lu, Andreas Stöhr)
-

S10: Microwave Tubes

Chairs: Manfred Thumm (KIT) and Werner Wiesbeck (KIT)

15:40–17:40, Tuesday, March 13, 2018, Room K9

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S10-1
15:40 **Benefits of Advanced Full-Wave Vector Analysis Codes for the Design of High-Power Microwave Tubes**
(A. Marek, K.A. Avramidis, N.S. Ginzburg, S. Illy, J. Jelonnek, J. Jin, S.V. Mishakin, M. Thumm)
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S10-2
16:00 **Considerations on the Selection of Operating Modes for Future Coaxial-Cavity Gyrotrons for DEMO**
(T. Ruess, K.A. Avramidis, G. Gantenbein, S. Illy, Z. Ioannidis, P.C. Kalaria, M. Obermaier, I.Gr. Pagonakis, S. Ruess, T. Rzesnicki, M. Thumm, J. Jelonnek)
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S10-3
16:20 **Mode Competition Control Using Triode-Type Start-Up Scenario for a 236GHz Gyrotron for DEMO**
(P.C. Kalaria, K.A. Avramidis, G. Gantenbein, S. Illy, I.Gr. Pagonakis, M. Thumm, J. Jelonnek)
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S10-4
16:40 **KIT In-House Manufacturing and First Operation of a 170GHz 2MW Longer-Pulse Coaxial-Cavity Pre-Prototype Gyrotron**
(S. Ruess, K.A. Avramidis, G. Gantenbein, Z. Ioannidis, S. Illy, P.C. Kalaria, T. Kobarg, I.Gr. Pagonakis, T. Ruess, T. Rzesnicki, M. Thumm, J. Weggen, J. Jelonnek)
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S10-5
17:00 **RF Behavior of a 220/251.5GHz, 2MW, Triangular Corrugated Coaxial Cavity Gyrotron Extended to the Third Operating Frequency 283GHz**
(S. Yuvaraj, Delphine Alphonsa Jose, Madan Singh Chauhan, M.V. Kartikeyan, M. Thumm)
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S10-6
17:20 **Design and Simulation of CW Tunable Gyrotron Using PBG Cavity as its RF Circuit**
(Rajanish Kumar Singh, M. Thottappan)

S11 : Communication Systems

Chairs: Thomas Zwick (KIT) and Thomas Merkle (Fraunhofer IAF)

15:40–17:40, Tuesday, March 13, 2018, Room Runder Saal

PAGE 303 S11-1 15:40	NI PXIe Based UHF RFID Reader <i>(M. Ferdik, M.S. Hesche, L. Rack, G. Saxl, T. Ussmueller)</i>
PAGE 307 S11-2 16:00	Implementation of a MIMO Channel Emulator for Over-the-Air LTE Testing Using Software Defined Radio <i>(Andreas Schwind, Philipp Berlt, Mario Lorenz, Christian Schneider, Matthias A. Hein)</i>
PAGE 311 S11-3 16:20	Path Based MIMO Channel Model for Hybrid Beamforming Architecture Analysis <i>(Joerg Eisenbeis, Marius Krause, Tobias Mahler, Steffen Scherr, Thomas Zwick)</i>
PAGE 315 S11-4 16:40	On the Design of Active Rx/Tx-Diplexers with Wide Frequency Spread <i>(Anton Sieganschin, Thomas Jaschke, Djamschid Safi, Arne F. Jacob)</i>
PAGE 319 S11-5 17:00	Aircraft Window Attenuation Measurements at 60GHz for Wireless In-Cabin Communication <i>(Fabian Schwartz, Carsten Monka, Markus Krueckemeier, Joerg Schoebel)</i>
PAGE 323 S11-6 17:20	E-Band Transceiver System Characterization Based on Bandwidth Dependent Linear Impairments <i>(S.M. Dilek, P. Harati, Eswara Rao Bammidi, Ingmar Kallfass)</i>

S12 : mm-Wave Integrated Circuits

Chairs: Wolfgang Heinrich (FBH) and Michael Schlechtweg (Fraunhofer IAF)

08:30–10:10, Wednesday, March 14, 2018, Room K9

PAGE 327 S12-1 08:30	Analysis of 4-Way Divider MMICs in GaAs Technology for H-Band Applications <i>(B. Amado-Rey, Y. Campos-Roca, Christian Friesicke, Friedbert van Raay, H. Massler, Arnulf Leuther, Oliver Ambacher)</i>
PAGE 331 S12-2 08:50	W-Band SPDT Switches in Planar and Tri-Gate 100-nm Gate-Length GaN-HEMT Technology <i>(Fabian Thome, Erdin Ture, Peter Brückner, Rüdiger Quay, Oliver Ambacher)</i>
PAGE 335 S12-3 09:10	Design of an Error Detector Circuit for BPSK Costas Loop for Carrier Synchronization in Millimeter-Wave Receivers <i>(Eswara Rao Bammidi, Ingmar Kallfass)</i>
PAGE 339 S12-4 09:30	12GHz to 40GHz 0.13-μm SiGe BiCMOS Circuits for UWB 3D Real-Time OFDM MIMO Imaging Radar Applications <i>(Uroschanit Yodprasit, Wolfgang Winkler, Thomas Multerer, Alexander R. Ganis, Volker Ziegler, Christian Wipf, Matthias Wietstruck)</i>
PAGE 343 S12-5 09:50	A 155GHz Low-Power Total Power Radiometer in a 130nm SiGe Technology <i>(Erick Aguilar, Amelie Hagelauer, Robert Weigel)</i>

S13: Radar Modeling and Processing

Chairs: Frauke Steinhagen (DHBW Loerrach / Fraunhofer IAF) and Joerg Schoebel (Technische Universität Braunschweig)

08:30–10:10, Wednesday, March 14, 2018, Room Runder Saal

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S13-1
08:30 **Data Rate Reduction for Chirp-Sequence Based Automotive Radars Using Compressed Sensing**
(Fabian Roos, Philipp Hügler, Christina Knill, Nils Appenrodt, Jürgen Dickmann, Christian Waldschmidt)
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S13-2
08:50 **Virtual Interference Study for FMCW and PMCW Radar**
(Hans-Peter Beise, Thomas Stifter, Udo Schröder)
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S13-3
09:10 **High-Resolution Parameter Estimation for Chirp-Sequence Radar Considering Hardware Impairments**
(Stephan Häfner, André Dürr, Reiner Thomä, Christian Waldschmidt, Giovanni Del Galdo)
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S13-4
09:30 **A Robust Real-Time Demodulation Scheme for Backscatter Transponder Based Wireless Positioning Systems**
(Martin Schuetz, Martin Vossiek)
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S13-5
09:50 **High Precision Real-Time FMCW-Radar Signal Processing Performed on a Levitating Sphere Control Loop System**
(Alexander Orth, Timo Jaeschke, Lukas Piotrowsky, Nils Pohl)
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S14: Passive Components

Chairs: Klaus Solbach (Universität Duisburg-Essen) and Andreas R. Diewald (Hochschule Trier)

10:30–12:10, Wednesday, March 14, 2018, Room K9

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S14-1
10:30 **Substituting Bond Wires by Additively Manufactured Interconnections**
(K. Lomakin, M. Sippel, G. Gold, J. Ringel, D. Weiß, K. Helmreich, M. Ankenbrand, J. Franke)
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S14-2
10:50 **Electromagnetically Coupled Coplanar Waveguide to Stripline Transition in LTCC Technology**
(Akanksha Bhutani, Benjamin Goettel, Jonathan Mayer, Mario Pauli, Thomas Zwick)
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S14-3
11:10 **Design and Characterization of a Compact and Robust Shielded Dielectric Waveguide for mmW Applications**
(Felix Distler, Daniel Oppelt, Jan Schür, Martin Vossiek)
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S14-4
11:30 **Low Reflective Aerosol Jet Printed Broadband Matched Load up to 67GHz**
(K. Lomakin, M. Sippel, G. Gold, J. Fröhlich, K. Helmreich, M. Ankenbrand, J. Franke)
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S14-5
11:50 **Optimized Coil Design for Magnetic Local Positioning Systems**
(Markus Hehn, Martin Vossiek, Felix Dollinger, Karl Leo, Bahman Kheradmand-Boroujeni, Frank Ellinger)

S15 : Radar Sensors and Imaging

Chairs: Axel Hülsmann (OndoSense) and Christian Waldschmidt (Universität Ulm)

10:30–12:10, Wednesday, March 14, 2018, Room Runder Saal

PAGE 387 S15-1 10:30	Detection of Dry Fiber Fabric in Glass Fiber Reinforced Plastics Using a Focused W-Band Radar <i>(Dominik Meier, Christian Zech, Benjamin Baumann, Axel Hülsmann, Torsten Link, Michael Schlechtweg, Jutta Kühn, Frauke Steinhagen, Leonhard Reindl)</i>
PAGE 391 S15-2 10:50	Multi Channel Approaches for an Automotive Synthetic Aperture Radar <i>(Fabian Harrer, Florian Pfeiffer, Andreas Löffler, Thomas Gisder, Christian Buchberger, Erwin Biebl)</i>
PAGE 395 S15-3 11:10	Characteristics of the High-Performance Highly Digitized Multi-Purpose Radar System GigaRad: System Concept, System Correction and Calibration, Applications <i>(Matthias Jirousek, Stephan Dill, Eric Schreiber, Simon Anger, Markus Peichl, Harald Schreiber)</i>
PAGE 399 S15-4 11:30	Prototype System for Microwave Breast Imaging: Experimental Results from Tissue Phantoms <i>(Dennis Wörtge, Jochen Moll, Moritz Mälzer, Viktor Krozer, Frank Hübner, Babak Bazrafshan, Thomas J. Vogl, Adam Santorelli, Milica Popović, Natalia Nikolova)</i>
PAGE 403 S15-5 11:50	Radar-Based Detection of Thoracoabdominal Asynchrony During Breathing Using Autocorrelation Function Analysis <i>(Una Karahasanović, Dimitri Tatarinov)</i>