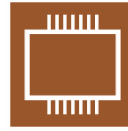




**Forschungsfabrik
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Deutschland



**Technology Platform
"Microwave & Terahertz"**

Publications from the Technology Platform "Microwave & Terahertz" of the Research Fab Microelectronics Germany (2019)

- Ahmad, W. et al. (2019): A compact efficient d-band micromachined on-chip differential patch antenna for radar applications. In: 2019 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, APSURSI 2019 - Proceedings (Conference Paper). DOI:10.1002/andp.201900199. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071050684&doi=10.1002%2fandp.201900199&partnerID=40&md5=6b905d26fd7240976b27899a9cbc5e87>
- Ahmad, W.A. et al. (2019): Design of planar waveguide transition and antenna array utilizing low-loss substrate for 79 GHz radar applications. In: IEEE Radio and Wireless Symposium, RWS (Conference Paper). DOI:10.1002/crat.201900129. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074570501&doi=10.1002%2fcrat.201900129&partnerID=40&md5=5d0e772638dc994e59736dc272cff01d>
- Ahmad, W.A. et al. (2019): Planar Highly Efficient High-Gain 165 GHz On-Chip Antennas for Integrated Radar Sensors. In: IEEE Antennas and Wireless Propagation Letters (Article). DOI:10.1002/wrl.27485. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85052928264&doi=10.1002%2fwm.27485&partnerID=40&md5=82772d77b76ed1d6428b0f87b77934ca>
- Aidam, R. (2019): MBE of III-Nitride Semiconductors for Electronic Devices. In: Molecular beam epitaxy (Book Article). DOI:10.1002/pssa.201900244. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069840808&doi=10.1002%2fpssa.201900244&partnerID=40&md5=d4725c1c94b3781bb60673cdb0dbfe48>
- Aimone, A. et al. (2019): Ultra wide band variable gain amplifier for V-band transceivers. In: 8th German Microwave Conference, GeMiC 2014 (Conference Paper). DOI:10.1002/pssb.201900436. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074789596&doi=10.1002%2fpssb.201900436&partnerID=40&md5=bd99c1d8d91f71ca178f85e58d2ce465>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Ali, A. et al. (2019): High performance asymmetric coupled line balun at sub-THz frequency. In: Applied Sciences (Switzerland) (Article). DOI:10.1002/pssr.201900535. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075116931&doi=10.1002%2fpssr.201900535&partnerID=40&md5=5cb153a2c1aa6b06a547f9cb1ce6f613>
- Ali, M. et al. (2019): Quasi-Optic Transmitter and Receiver Modules Enabling Next-Generation Ultra-Broadband Wireless Links at Carrier-Wave Frequencies Ranging from 60 to 180 GHz. In: Journal of Infrared, Millimeter, and Terahertz Waves (Article). DOI:10.1007/s10762-019-00593-1. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065247005&doi=10.1007%2fs10762-019-00593-1&partnerID=40&md5=f5d6f3ffc3879cd5942f1dbcd7f94518>
- Ali, M.K. et al. (2019): Utilizing static frequency divider for quadrature signal generation in a 90 nm CMOS technology. In: 8th German Microwave Conference, GeMiC 2014 (Conference Paper). DOI:10.1007/s10762-019-00613-0. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069901038&doi=10.1007%2fs10762-019-00613-0&partnerID=40&md5=e773f025e0b8de050d8a17c52ba629df>
- Amirpour, R. et al. (2019): AlGa_N/Ga_N High Electron-mobility Varactors on Silicon Substrate. In: GeMiC 2019 - 2019 German Microwave Conference (Conference Paper). DOI: 10.1016/j.apsusc.2019.04.247. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065813381&doi=10.1016%2fj.apsusc.2019.04.247&partnerID=40&md5=605d537f0602ed342b0a901de56bc0f4>
- Amirpour, R. et al. (2019): High-Q Anti-Series AlGa_N/Ga_N High Electron-Mobility Varactor. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper). DOI: 10.1016/j.jcrysgro.2018.10.021. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85054756910&doi=10.1016%2fj.jcrysgro.2018.10.021&partnerID=40&md5=954c532aa83e16332f98c4a29b02d617>
- Amirpour, R. et al. (2019): Large-signal modeling of a scalable high-Q AlGa_N/Ga_N high electron-mobility varactor. In: IEEE Transactions on Microwave Theory and Techniques (Article). DOI: 10.1016/j.jcrysgro.2018.11.028. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85057776958&doi=10.1016%2fj.jcrysgro.2018.11.028&partnerID=40&md5=9a2ee126b7ff546e653dda099aa6895b>
- Arnieri, E. et al. (2019): An integrated radar tile for digital beamforming X-/Ka-band synthetic aperture radar instruments. In: IEEE Transactions on Microwave Theory and Techniques (Article). DOI: 10.1016/j.mee.2019.01.007. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061272684&doi=10.1016%2fj.mee.2019.01.007&partnerID=40&md5=90b312f4a2963bada9a00b2397b50316>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Arz, U. et al. (2019): Traceable Coplanar Waveguide Calibrations on Fused Silica Substrates up to 110 GHz. In: IEEE Transactions on Microwave Theory and Techniques (Article). DOI: 10.1016/j.mee.2019.111017. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066396927&doi=10.1016%2fj.mee.2019.111017&partnerID=40&md5=02463838b538fde02cb61f1e007a54bb>
- Askar, R. et al. (2019): Polarimetric characterization of MIMO Sub-6-GHz self-interference indoor radio channels. In: 2019 IEEE 30th International Symposium on Personal, Indoor and Mobile Radio Communications, PIMRC Workshops 2019 (Conference Paper). DOI: 10.1016/j.microrel.2019.113480. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074698431&doi=10.1016%2fj.microrel.2019.113480&partnerID=40&md5=2434206783f9ff4c9c7d380db1321de5>
- Askar, R. et al. (2019): Polarimetric characterization of sub-6-GHz self-interference indoor radio channels. In: 2019 IEEE International Conference on Communications Workshops, ICC Workshops 2019 - Proceedings (Conference Paper). DOI:10.1017/S175907871800171X. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061083320&doi=10.1017%2fS175907871800171X&partnerID=40&md5=e53cdb9ec06be720340d0521fc8405ae>
- Badawy, T. et al. (2019): Slotted Waveguide Antenna Integrated with Printed Yagi-Uda Director Array. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). DOI:10.1017/S1759078719000060. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062009254&doi=10.1017%2fS1759078719000060&partnerID=40&md5=b6afaf90cdc1bcf84e747e725481d634>
- Bajwa, A.A. et al. (2019): Thermal performance of high-temperature stable die-attachments for GaN HEMTs. In: CIPS 2016 - 9th International Conference on Integrated Power Electronics Systems (Conference Paper). DOI:10.1017/S175907871900045X. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064957119&doi=10.1017%2fS175907871900045X&partnerID=40&md5=37f50c1d5540658006b740795122d00e>
- Barwolf, F. et al. (2019): Dynamic SIMS, spectroscopic ellipsometry and x-ray diffractometry analysis of SiGe HBTs with Ge grading. In: Semiconductor Science and Technology (Article). DOI:10.1017/S1759078719000515. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065319950&doi=10.1017%2fS1759078719000515&partnerID=40&md5=808c31176c9b27d9c6e4b6297c3ff898>
- Bauer, M. et al. (2019): A High-Sensitivity AlGaIn/GaN HEMT Terahertz Detector with Integrated Broadband Bow-Tie Antenna. In: IEEE Transactions on Terahertz Science and Technology (Article). DOI:10.1017/S1759078719001193. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072167494&doi=10.1017%2fS1759078719001193&partnerID=40&md5=f9abf48463c60f4ab9a7bd62e60929a6>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Becker, A. et al. (2019): Control of etch pit formation for epitaxial growth of graphene on germanium. In: Journal of Applied Physics (Article). DOI:10.1038/s41566-019-0475-6. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069472716&doi=10.1038%2fs41566-019-0475-6&partnerID=40&md5=57309602f5061b26de085e8b35821371>
- Bello, H. et al. (2019): Low phase-noise high output power 176-GHz voltage-controlled oscillator in a 130-nm BiCMOS technology. In: IET Microwaves, Antennas and Propagation (Article). DOI:10.1049/el.2018.7511. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062817096&doi=10.1049%2fel.2018.7511&partnerID=40&md5=d76d9d483c4cf4784dd6ddb7cb3eb2f0>
- Ben, Bekhti N. et al. (2019): First studies towards a cryo-cooled Phased Array Radar System for Space Surveillance. In: IOP Conference Series: Materials Science and Engineering (Conference Paper). DOI:10.1049/el.2019.2387. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074969894&doi=10.1049%2fel.2019.2387&partnerID=40&md5=8bc7873c4de69f41443f564f4aacbd59>
- Berenguer, P.W. et al. (2019): Real-Time Optical Wireless Mobile Communication With High Physical Layer Reliability. In: Journal of Lightwave Technology (Article). DOI:10.1049/iet-map.2019.0397. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075610900&doi=10.1049%2fiet-map.2019.0397&partnerID=40&md5=fd198d924369d85d5349d8f2932db087>
- Bettenhausen, M. et al. (2019): Impedance Matching of THz Plasmonic Antennas. In: Journal of Infrared, Millimeter, and Terahertz Waves (Article). DOI:10.1049/iet-rsn.2018.5135. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062077335&doi=10.1049%2fiet-rsn.2018.5135&partnerID=40&md5=84a53eeff33c28141d5fd7ca34fecce8>
- Blasone, G.P. et al. (2019): A two-stage approach for direct signal and clutter cancellation in passive radar on moving platforms. In: 2019 IEEE Radar Conference, RadarConf 2019 (Conference Paper). DOI:10.1049/iet-rsn.2018.5622. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071245885&doi=10.1049%2fiet-rsn.2018.5622&partnerID=40&md5=c173e7786fc9d62d79bede027499f63d>
- Boccardi, B. et al. (2019): The TeV-emitting radio galaxy 3C 264: VLBI kinematics and SED modeling. In: Astronomy and Astrophysics (Article). DOI:10.1051/0004-6361/201935183. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069453067&doi=10.1051%2f0004-6361%2f201935183&partnerID=40&md5=15e6d8935c59e0bebda1b51dd4567813>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Bottger, G. et al. (2019): Thin glass based photonic and electronic assemblies. In: 2018 IEEE CPMT Symposium Japan, ICSJ 2018 (Conference Paper). DOI:10.1063/1.5066261. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85060162285&doi=10.1063%2f1.5066261&partnerID=40&md5=ff189eb6285f21aa01efeea242eb55b1>
- Brahem, M. et al. (2019): Thermally stable iridium contacts to highly doped p-In_{0.53}Ga_{0.47}As for indium phosphide double heterojunction bipolar transistors. In: Microelectronic Engineering (Article). DOI:10.1063/1.5082172. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063250240&doi=10.1063%2f1.5082172&partnerID=40&md5=f7b34fb11796dc2ff4730a843a4bcb6b>
- Breitenreiter, A. et al. (2019): A Radiation Tolerant 10/100 Ethernet Transceiver for Space Applications. In: 2019 IEEE 25th International Symposium on On-Line Testing and Robust System Design, IOLTS 2019 (Conference Paper). DOI:10.1063/1.5083838. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064161758&doi=10.1063%2f1.5083838&partnerID=40&md5=36cdbba9ceb7582e010efb01db73cb96>
- Brockmann, C. et al. (2019): Realisierung und Anwendung energieautarker miniaturisierter Funksensorik: Chancen durch IoT, 5G und Narrowband Realization and usage of energy self-sufficient miniaturized wireless sensors: Opportunities through IoT, 5G and Narrowband. In: Technisches Messen (Article). DOI:10.1063/1.5085184. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062092617&doi=10.1063%2f1.5085184&partnerID=40&md5=de19bf72bd61e6b2a79142572d473174>
- Brüggewirth, S. et al. (2019): Robotic control for cognitive UWB radar. In: Robotic Intelligence (Book Chapter). DOI:10.1063/1.5092653. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067497345&doi=10.1063%2f1.5092653&partnerID=40&md5=3e743af4cedc8eed19ea25c8926486b9>
- Büchner, S. et al. (2019): 100 Gbit/s End-to-End Communication: Adding Flexibility with Protocol Templates. In: Proceedings - Conference on Local Computer Networks, LCN (Conference Paper). DOI:10.1063/1.5108774. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071605550&doi=10.1063%2f1.5108774&partnerID=40&md5=075ba789b8f7960b20de50b9d459e3a1>
- Burla, M. et al. (2019): A 325 GHz Analog Photonic Link. In: 2019 IEEE International Topical Meeting on Microwave Photonics, MWP 2019 (Conference Paper). DOI:10.1088/1361-6595/ab06a7. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066246871&doi=10.1088%2f1361-6595%2fab06a7&partnerID=40&md5=e8dfa97bf8257b391f97d41de0e8f812>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Caliskan, C. et al. (2019): Ultra-Low Noise Amplifier for X-Band SiGe BiCMOS Phased Array Applications. In: IEEE Transactions on Circuits and Systems II: Express Briefs (Article). DOI:10.1088/1361-6641/aaf3e2. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85059166177&doi=10.1088%2f1361-6641%2faaf3e2&partnerID=40&md5=a41d219ec1c597172e807d6b8a510656>
- Carrubba, V. et al. (2019): Source/load pull investigation of AlGaN/GaN power transistors with ultra-high efficiency. In: 8th German Microwave Conference, GeMiC 2014 (Conference Paper). DOI:10.1088/1748-0221/14/07/P07013. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072210896&doi=10.1088%2f1748-0221%2f14%2f07%2fP07013&partnerID=40&md5=eb77f97eebdf3b375e989e79b3916c3f>
- Castro, C. et al. (2019): 32 GBd 16QAM Wireless Transmission in the 300 GHz Band using a PIN Diode for THz Upconversion. In: 2019 Optical Fiber Communications Conference and Exhibition, OFC 2019 - Proceedings (Conference Paper). DOI:10.1088/1757-899X/502/1/012194. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065971041&doi=10.1088%2f1757-899X%2f502%2f1%2f012194&partnerID=40&md5=17928ee76c7209dcec05c5768a6ee9cc>
- Castro, C. et al. (2019): Analysis of Joint Impairment Mitigation in a Hybrid Optic-THz Transmission System. In: IEEE Workshop on Signal Processing Advances in Wireless Communications, SPAWC (Conference Paper). DOI:10.1103/PhysRevApplied.11.054068. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066748513&doi=10.1103%2fPhysRevApplied.11.054068&partnerID=40&md5=cc12f128f58b8c97b18ff86daad09a2>
- Castro, C. et al. (2019): Experimental validation of coherent dsp for combined fibre-optical/terahertz-wireless links. In: Proceedings of the International Symposium on Wireless Communication Systems (Conference Paper). DOI:10.1109/ACCESS.2019.2906034. Link: <https://www.scopus.com/record/display.uri?eid=2-s2.0-85064248791&doi=10.1109%2fACCESS.2019.2906034&origin=inward&txGid=f397b9e24978924f628b615ab8fd0871>
- Chalermwisutkul, S. et al. (2019): A Coaxial Microwave Heating Applicator with Double Loading Discs for a Confined Power Loss Density Pattern. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). DOI:10.1109/ACCESS.2019.2907156. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064707701&doi=10.1109%2fACCESS.2019.2907156&partnerID=40&md5=34f5c60401b02835f6cb2bd0ac4a56a9>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Ciano, C. et al. (2019): Electron-doped SiGe Quantum Well Terahertz Emitters pumped by FEL pulses. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.1109/ACSSC.2018.8645229. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062981715&doi=10.1109%2fACSSC.2018.8645229&partnerID=40&md5=567f498c7e5de25246ef834339cf714b>
- Correas-Serrano, A. et al. (2019): Sparse reconstruction of chirplets for automotive FMCW radar interference mitigation. In: 2019 IEEE MTT-S International Conference on Microwaves for Intelligent Mobility, ICMIM 2019 (Conference Paper). DOI:10.1109/APEC.2019.8722279. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067097474&doi=10.1109%2fAPEC.2019.8722279&partnerID=40&md5=b5b61e9e83cf181fdd125d3b7b56ebe0>
- Couret, M. et al. (2019): Impact of SiGe HBT hot-carrier degradation on the broadband amplifier output supply current. In: European Solid-State Device Research Conference (Conference Paper). DOI:10.1109/APUSNCURSINRSM.2019.8889358. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075013903&doi=10.1109%2fAPUSNCURSINRSM.2019.8889358&partnerID=40&md5=6dcee1325c7bc4175ada85680d76322>
- Couret, M. et al. (2019): Physical, small-signal and pulsed thermal impedance characterization of multi-finger SiGe HBTs close to the SOA edges. In: IEEE International Conference on Microelectronic Test Structures (Conference Paper). DOI:10.1109/CCWC.2019.8666546. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063878689&doi=10.1109%2fCCWC.2019.8666546&partnerID=40&md5=51b264009accafadaa533c37b200759e>
- Cwiklinski, M. et al. (2019): D-Band and G-Band High-Performance GaN Power Amplifier MMICs. In: IEEE Transactions on Microwave Theory and Techniques (Article). DOI:10.1109/CLEOE-EQEC.2019.8872180. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074635826&doi=10.1109%2fCLEOE-EQEC.2019.8872180&partnerID=40&md5=9c35414803c8ccae88fd683077df6273>
- Cwiklinski, M. et al. (2019): 190-GHz G-Band GaN Amplifier MMICs with 40GHz of Bandwidth. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper). DOI:10.1109/CLEOE-EQEC.2019.8872901. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074654376&doi=10.1109%2fCLEOE-EQEC.2019.8872901&partnerID=40&md5=6c41d07c99b824cc1fae1b1503f1ead>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Demumieux, P. et al. (2019): Design of a low-capacitance planar transformer for a 4 kW/500 kHz DAB converter. In: Conference Proceedings - IEEE Applied Power Electronics Conference and Exposition - APEC (Conference Paper). DOI:10.1109/CLEOE-EQEC.2019.8872902. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074661339&doi=10.1109%2fCLEOE-EQEC.2019.8872902&partnerID=40&md5=525acb6955d6d67dfc3615340053bbd8>
- Döringshoff, K. et al. (2019): Iodine Frequency Reference on a Sounding Rocket. In: Physical Review Applied (Article). DOI:10.1109/CLEOE-EQEC.2019.8873098. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074650923&doi=10.1109%2fCLEOE-EQEC.2019.8873098&partnerID=40&md5=5b15942fc730f767061ff51a49ec499b>
- Duk, V. et al. (2019): Analysis of Clutter for Passive Radar on Moving Platforms Using Tunable Q-factor Wavelet Transforms. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.1109/DDECS.2019.8724657. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067547539&doi=10.1109%2fDDECS.2019.8724657&partnerID=40&md5=1e2ba71bc85a730332df0c6fb51c637a>
- Dyck, A. et al. (2019): A Transmitter system-in-package at 300 GHz with an off-chip antenna and gaas-based mmics. In: IEEE Transactions on Terahertz Science and Technology (Article). DOI:10.1109/ECTC.2019.00147. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072279129&doi=10.1109%2fECTC.2019.00147&partnerID=40&md5=458c15d80908c00ac170aa8adb50770e>
- Dyskin, A. et al. (2019): A Compact Resistive Quadrature Low Noise Ka-Band VCO SiGe HBT MMIC. In: GeMiC 2019 - 2019 German Microwave Conference (Conference Paper). DOI:10.1109/ELNANO.2019.8783596.
- Edler, J. et al. (2019): A continuous wave pseudo random noise radar system using MIMO and analog correlation. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.1109/EMCEurope.2019.8872119. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074330764&doi=10.1109%2fEMCEurope.2019.8872119&partnerID=40&md5=c5b4815e9d2da31ddb23fae4ef86068>
- Eissa, M.H. et al. (2019): 4.5 A 13.5dBm Fully Integrated 200-to-255GHz Power Amplifier with a 4-Way Power Combiner in SiGe:C BiCMOS. In: Digest of Technical Papers - IEEE International Solid-State Circuits Conference (Conference Paper). DOI:10.1109/ESSDERC.2019.8901781. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075733530&doi=10.1109%2fESSDERC.2019.8901781&partnerID=40&md5=20f5d88e5f6d199b7ea0ddac3475cc2d>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Eldessoki, S. et al. (2019): Peak-to-average-power reduction for FBMC-based systems. In: WSA 2016 - 20th International ITG Workshop on Smart Antennas (Conference Paper). DOI:10.1109/ETFA.2019.8869352. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074199522&doi=10.1109%2fETFA.2019.8869352&partnerID=40&md5=aff3bae20ec77d3f7f392d9d8ed8bee3>
- Ender, J. (2019): Multi-channel GMTI via approximated observation. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.1109/EuCNC.2019.8801999. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071725375&doi=10.1109%2fEuCNC.2019.8801999&partnerID=40&md5=f9d73a6056750376af03147c5dc8f21d>
- Engelhard, P. et al. (2019): Toward scalable and virtualized massive wireless sensor networks. In: Proceedings of the 2019 International Conference on Networked Systems, NetSys 2019 (Conference Paper). DOI:10.1109/EURONAV.2019.8714184. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067127715&doi=10.1109%2fEURONAV.2019.8714184&partnerID=40&md5=ffd9e6934f08d2a3f05e8a88223ec95a>
- Engin, A.E. et al. (2019): Closed-Form Multipole Debye Model for Time-Domain Modeling of Lossy Dielectrics. In: IEEE Transactions on Electromagnetic Compatibility (Article). DOI:10.1109/GlobalSIP.2018.8646360. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063087432&doi=10.1109%2fGlobalSIP.2018.8646360&partnerID=40&md5=7eabdc9fbdb08db0f0a60e17ba6ee0be>
- Engin, A.E. et al. (2019): Mixed-Port Scattering and Hybrid Parameters for High-Speed Differential Lines. In: IEEE Transactions on Electromagnetic Compatibility (Article). DOI:10.1109/GlobalSIP.2018.8646487. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063087510&doi=10.1109%2fGlobalSIP.2018.8646487&partnerID=40&md5=82d6f266e64822746b93bad468f2577c>
- Ergintav, A. et al. (2019): A Study of Phase Noise and Frequency Error of a Fractional-N PLL in the Course of FMCW Chirp Generation. In: IEEE Transactions on Circuits and Systems I: Regular Papers (Article). DOI:10.1109/GLOCOMW.2018.8644265. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063514651&doi=10.1109%2fGLOCOMW.2018.8644265&partnerID=40&md5=555e23eaef5a02b054a13e48e4db8fec>
- Ergintav, A. et al. (2019): Multiplexed Twin PLLs for Wide-Band FMCW Chirp Generation in 130-nm BiCMOS. In: IEEE Microwave and Wireless Components Letters (Article). DOI:10.1109/ICC.2019.8761150. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070229314&doi=10.1109%2fICC.2019.8761150&partnerID=40&md5=46748bf175c4adca1d7a605f7dbf51d9>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Ersoy, E. et al. (2019): A compact GaN-MMIC non-uniform distributed power amplifier for 2 to 12 GHz. In: 8th German Microwave Conference, GeMiC 2014 (Conference Paper). DOI:10.1109/ICCW.2019.8756646. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070315852&doi=10.1109%2fICCW.2019.8756646&partnerID=40&md5=77f3a51073be2b808515c4fde4aad36d>
- Fedtschenko, T. et al. (2019): A 13.56 MHz RF Frontend with Current-Mode Demodulator for Wide Input-Power Dynamic-Range. In: 2019 IEEE 39th International Conference on Electronics and Nanotechnology, (Conference Paper). DOI:10.1109/ICEAA.2019.8879266. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074950213&doi=10.1109%2fICEAA.2019.8879266&partnerID=40&md5=b964dd3cebafde34243c91f4071645a5>
- Fleischmann, S. et al. (2019): Influence of quartz on silicon incorporation in HVPE grown AlN. In: Journal of Crystal Growth (Article). DOI:10.1109/ICEAA.2019.8879351. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074916762&doi=10.1109%2fICEAA.2019.8879351&partnerID=40&md5=76a4e05df1ad79c69fc78515e3d15226>
- Frei, K. et al. (2019): Investigation of growth parameters for ScAlN-barrier HEMT structures by plasma-assisted MBE. In: Japanese Journal of Applied Physics (Article). DOI:10.1109/ICECS.2018.8617916. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062293991&doi=10.1109%2fICECS.2018.8617916&partnerID=40&md5=2a503833edfb5403152497cc21b791cd>
- Freude, W. et al. (2019): Wireless terahertz communications. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1109/ICIPRM.2019.8819000. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072973838&doi=10.1109%2fICIPRM.2019.8819000&partnerID=40&md5=0ed6257de85e2a2b924eb01a7a65125e>
- Galati, G. et al. (2019): Environmental effects on ground-based radar measurements. In: 2019 IEEE International Workshop on Metrology for AeroSpace, MetroAeroSpace 2019 - Proceedings (Conference Paper). DOI:10.1109/ICL-GNSS.2019.8752840. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069510448&doi=10.1109%2fICL-GNSS.2019.8752840&partnerID=40&md5=a5eac32d99db95418184052073f30f72>
- Galati, G. et al. (2019): Optimal Processing in Noise Radar: Implementation Problems. In: 2019 Signal Processing Symposium, SPSympo 2019 (Conference Paper). DOI:10.1109/ICL-GNSS.2019.8752853. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069516746&doi=10.1109%2fICL-GNSS.2019.8752853&partnerID=40&md5=a5e087a652704ddfb35605d8fc3689c6>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Globisch, B. et al. (2019): Photonic Terahertz Solutions for Sensing, Spectroscopy and Wireless Communication. In: 2019 Optical Fiber Communications Conference and Exhibition, OFC 2019 - Proceedings (Conference Paper). DOI:10.1109/ICMIM.2019.8726648. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068046371&doi=10.1109%2fICMIM.2019.8726648&partnerID=40&md5=3ffe102b01fc58efa64a4b346d712ac3>
- Grange, T. et al. (2019): Room temperature operation of n -type Ge/SiGe terahertz quantum cascade lasers predicted by non-equilibrium Green's functions. In: Applied Physics Letters (Article). DOI:10.1109/ICMIM.2019.8726758. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068071793&doi=10.1109%2fICMIM.2019.8726758&partnerID=40&md5=05d120b40a7122e6457cf199dcb7cf69>
- Griffiths, H. et al. (2019): Christian Hülsmeyer: Invention and Demonstration of Radar, 1904. In: IEEE Aerospace and Electronic Systems Magazine (Review). DOI:10.1109/ICMTS.2019.8730964. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067895566&doi=10.1109%2fICMTS.2019.8730964&partnerID=40&md5=dde3fa1ec94e0e36c72be234a10c7819>
- Grotsch, C.M. et al. (2019): A Highly Linear FMCW Radar Chipset in H-Band with 50 GHz Bandwidth. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper). DOI:10.1109/ICCSJ.2018.8602516. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061749559&doi=10.1109%2fICCSJ.2018.8602516&partnerID=40&md5=8a4c0b224c03aae691853ae778fee627>
- Grotsch, C.M. et al. (2019): An Active Gate-Pumped Transconductance Upconverter for Terahertz Frequencies. In: GeMiC 2019 - 2019 German Microwave Conference (Conference Paper). DOI:10.1109/ICTON.2019.8840155. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073056934&doi=10.1109%2fICTON.2019.8840155&partnerID=40&md5=49ffbd2acf812a377a3d90d599bc71ba>
- Grzyb, J. et al. (2019): A Lens-Coupled On-Chip Antenna for Dual-Polarization SiGe HBT THz Direct Detector. In: IEEE Antennas and Wireless Propagation Letters (Article). DOI:10.1109/IEDM.2018.8614691. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061823300&doi=10.1109%2fIEDM.2018.8614691&partnerID=40&md5=27aaefc2a97f833624b3259312f45f77>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Grzyb, J. et al. (2019): The Influence of RF Front-End Imperfections on Performance of a 220-260 GHz Tunable M-QAM Wireless Link in SiGe HBT Technology. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.1109/IOLTS.2019.8854370. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073761558&doi=10.1109%2fIOLTS.2019.8854370&partnerID=40&md5=afa0ab0aa7e4819a8f428c893103d88a>
- Gwaro, J.O. et al. (2019): Continuous wave thz source based on an electrically tunable monolithic two-color semiconductor diode laser. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1109/IRMMW-THz.2019.8873837. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074715331&doi=10.1109%2fIRMMW-THz.2019.8873837&partnerID=40&md5=862dea203a2f1a95e6bb297657c7a664>
- Hamid, S. et al. (2019): Experimental Demonstration of Antenna Isolation Improvement using Planar Resonant Absorbers. In: EMC Europe 2019 - 2019 International Symposium on Electromagnetic Compatibility (Conference Paper). DOI:10.1109/IRMMW-THz.2019.8873856. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074701793&doi=10.1109%2fIRMMW-THz.2019.8873856&partnerID=40&md5=987355b91d1c6e7d4f125d20f4a41158>
- Harter, T. et al. (2019): Wireless THz link with optoelectronic transmitter and receiver. In: Optica (Article). DOI:10.1109/IRMMW-THz.2019.8873894. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074722259&doi=10.1109%2fIRMMW-THz.2019.8873894&partnerID=40&md5=011aea02a98a05b23beef8c15fc0d537>
- Hasan, R. et al. (2019): F-Band Differential Microstrip Patch Antenna Array and Waveguide to Differential Microstrip Line Transition for FMCW Radar Sensor. In: IEEE Sensors Journal (Article). DOI:10.1109/IRMMW-THz.2019.8874086. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074692646&doi=10.1109%2fIRMMW-THz.2019.8874086&partnerID=40&md5=a4d60914837fcf2ee878d776d8d7c2f2>
- Heinz, F. (2019): RF-noise model extraction procedure for distributed multiport models. In: German Microwave Conference, GeMiC 2019 (Conference Paper). DOI:10.1109/IRMMW-THz.2019.8874257. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074702053&doi=10.1109%2fIRMMW-THz.2019.8874257&partnerID=40&md5=97cef69049eaf5fab3b0be973c70a63>
- Heredia, J. et al. (2019): A 125-143-GHz Frequency-Reconfigurable BiCMOS Compact LNA Using a Single RF-MEMS Switch. In: IEEE Microwave and Wireless Components Letters (Article). DOI:10.1109/IRMMW-THz.2019.8874294. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074709952&doi=10.1109%2fIRMMW-THz.2019.8874294&partnerID=40&md5=f251467d3160fda6879d9b8a9ca1e74d>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Heredia, J. et al. (2019): Miniature switchable millimeter-wave BiCMOS low-noise amplifier at 120/140 GHz using an HBT switch. In: Micromachines (Article). DOI:10.1109/IRMMW-THz.2019.8874311. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074709238&doi=10.1109%2fIRMMW-THz.2019.8874311&partnerID=40&md5=ef20f97a6345b9e8b8507c84e8e6304e>
- Herzel, F. et al. (2019): An Integrated VCO with Frequency Tripler in SiGe BiCMOS with a 1-dB Bandwidth from 22 GHz to 32 GHz for Multiband 5G Wireless Networks. In: GeMiC 2019 - 2019 German Microwave Conference (Conference Paper). DOI:10.1109/IRMMW-THz.2019.8874354. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074708731&doi=10.1109%2fIRMMW-THz.2019.8874354&partnerID=40&md5=056683d1e1f80d9d643d02ad4017d1b0>
- Herzel, F. et al. (2019): Numerical Jitter Minimization for PLL-Based FMCW Radar Systems. In: IEEE Transactions on Circuits and Systems I: Regular Papers (Article). DOI:10.1109/ISSCC.2019.8662424. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063529509&doi=10.1109%2fISSCC.2019.8662424&partnerID=40&md5=4a4bde130f5f7692c882ff10131eb599>
- Hinrichs, M. et al. (2019): Pulsed Modulation PHY for Power Efficient Optical Wireless Communication. In: IEEE International Conference on Communications (Conference Paper). DOI:10.1109/ISWCS.2019.8877170. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074636807&doi=10.1109%2fISWCS.2019.8877170&partnerID=40&md5=36261b6159b1faa084b6378e6e6482ca>
- Hodges, J. (2019): Consistent modelling of I-V and C-V behaviour of GaN HEMTs in presence of trapping. In: IEEE MTT-S International Microwave Symposium, IMS 2019 (Conference Paper). DOI:10.1109/ISWCS.2019.8877328. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074672656&doi=10.1109%2fISWCS.2019.8877328&partnerID=40&md5=d6313aa8c793e16b670033c4d6fdd905>
- Hodges, J. et al. (2019): Modeling the Impact of the High-Field Region on the C-V Characteristics in GaN HEMTs. In: IEEE Transactions on Electron Devices (Article). DOI:10.1109/JERM.2019.2895539. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069952715&doi=10.1109%2fJERM.2019.2895539&partnerID=40&md5=2d9d5c398bcf10ca1c7bd162e5394537>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Hoffmann, R. et al. (2019): Performance evaluation of a distributed radar system for space surveillance. In: 2019 IEEE Radar Conference, RadarConf 2019 (Conference Paper). DOI:10.1109/JLT.2019.2891270. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062179705&doi=10.1109%2fJLT.2019.2891270&partnerID=40&md5=beb91532fb9a594cc7e53fc915dc9990>
- Holfeld, B. et al. (2019): On stable many-to-many matching for distributed medium access with reuse of spectral resources. In: WSA 2016 - 20th International ITG Workshop on Smart Antennas (Conference Paper). DOI:10.1109/JLT.2019.2893520. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063886434&doi=10.1109%2fJLT.2019.2893520&partnerID=40&md5=b7017117eea5106990fda445691dc9f>
- Hommen, S. et al. (2019): Beam pattern optimization using phase manipulation of dummy elements in a phased array antenna. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.1109/JSEN.2019.2909935. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068707805&doi=10.1109%2fJSEN.2019.2909935&partnerID=40&md5=24d56c459c81a9f889c812a5d35c5a5e>
- Hossain, M. et al. (2019): A 240 GHz Active Multiplier-Based Signal Source for Millimeter-Wave/Terahertz Applications. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.1109/JSSC.2019.2915161. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071600020&doi=10.1109%2fJSSC.2019.2915161&partnerID=40&md5=74ee06454394f1a42ecae0e4e2abc00c>
- Hossain, M. et al. (2019): Efficient active multiplier-based signal source for >300 GHz system applications. In: Electronics Letters (Article). DOI:10.1109/JSSC.2019.2921154. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071528126&doi=10.1109%2fJSSC.2019.2921154&partnerID=40&md5=16835b6998e4b197cf4744fd24d9bc2e>
- Huhn, F. et al. (2019): A Reconfigurable Modulator for Digital Outphasing Transmitters. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper). DOI:10.1109/LAWP.2019.2904170. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064278763&doi=10.1109%2fLAWP.2019.2904170&partnerID=40&md5=204dc1c09f80fbb12b2a80805437c233>
- Hühn, F. et al. (2019): Highly compact GaN-based all-digital transmitter chain including SPDT T/Rx switch for massive MIMO applications. In: International Journal of Microwave and Wireless Technologies (Conference Paper). DOI:10.1109/LAWP.2019.2927300. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075007721&doi=10.1109%2fLAWP.2019.2927300&partnerID=40&md5=e0ced36ab5e4a25cc49cb67da30d4f19>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Ikamas, K. et al. (2019): Correction: Broadband terahertz power detectors based on 90-nm silicon CMOS transistors with flat responsivity pp to 2.2 THz (IEEE Electron Device Letters (2018) 39:9 (1413-1416) DOI: 10.1109/LED.2018.2859300). In: IEEE Electron Device Letters (Erratum). DOI:10.1109/LAWP.2019.2940110. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075022209&doi=10.1109%2fLAWP.2019.2940110&partnerID=40&md5=9238dd1d33fb360f809772e8487d3c46>
- Ismayilov, R. et al. (2019): Power and Beam Optimization for Uplink Millimeter-Wave Hotspot Communication Systems. In: IEEE Wireless Communications and Networking Conference, WCNC (Conference Paper). DOI:10.1109/LCN.2018.8638078. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062819254&doi=10.1109%2fLCN.2018.8638078&partnerID=40&md5=0149e80267f2abb9b4d6f261cd59354f>
- Jaeckel, S. et al. (2019): Efficient Sum-of-Sinusoids-Based Spatial Consistency for the 3GPP New-Radio Channel Model. In: 2018 IEEE Globecom Workshops, GC Wkshps 2018 - Proceedings (Conference Paper). DOI:10.1109/LED.2018.2889431. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85058993838&doi=10.1109%2fLED.2018.2889431&partnerID=40&md5=1f17db8fd3b747155722b4ef9e82f2db>
- Jaeschke, T. et al. (2019): 3D FMCW SAR Imaging based on a 240 GHz SiGe Transceiver Chip with Integrated Antennas. In: 8th German Microwave Conference, GeMiC 2014 (Conference Paper). DOI:10.1109/LMWC.2018.2885916. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85059013980&doi=10.1109%2fLMWC.2018.2885916&partnerID=40&md5=e1c145e53c231286c14b5ab9ca3bcdfc>
- Jeędrzejewski, K. et al. (2019): Recent challenges and advances in microwave and radar techniques-MIKON 2018 special issue. In: International Journal of Microwave and Wireless Technologies (Editorial). DOI:10.1109/LMWC.2019.2899487. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064107525&doi=10.1109%2fLMWC.2019.2899487&partnerID=40&md5=f58ecaf62d8c10ca0a5c08b1db0c7957>
- Jimenez-Saez et al. (2019): 3D printed alumina for low-loss millimeter wave components. In: IEEE Access, (Article). DOI:10.1109/LMWC.2019.2906595. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065605034&doi=10.1109%2fLMWC.2019.2906595&partnerID=40&md5=c262039e28ba7880da99b5059907a2cc>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- John, L. (2019): Investigation of compact power amplifier cells at THz frequencies using InGaAs mHEMT technology. In: IEEE MTT-S International Microwave Symposium, IMS 2019 (Conference Paper). DOI:10.1109/LMWC.2019.2911919. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067106458&doi=10.1109%2fLMWC.2019.2911919&partnerID=40&md5=fe31f3a56895855c7fc7f35ad258e857>
- John, L. et al. (2019): A 280-310 GHz InAlAs/InGaAs mHEMT power amplifier MMIC with 6.7-8.3 dBm output power. In: IEEE Microwave and Wireless Components Letters (Article). DOI:10.1109/LMWC.2019.2916702. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068861418&doi=10.1109%2fLMWC.2019.2916702&partnerID=40&md5=2f66180b56fa77a150645b2ba9d14a20>
- Kandis, H. et al. (2019): A Wideband (3-13 GHz) 7-Bit SiGe BiCMOS Step Attenuator with Improved Flatness. In: Mediterranean Microwave Symposium (Conference Paper). DOI:10.1109/MAES.2018.160146. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062997023&doi=10.1109%2fMAES.2018.160146&partnerID=40&md5=13b13bb743f5201a5d46337edfd66a4f>
- Kanno, A. et al. (2019): Wired and Wireless Network Convergence in 5G/IoT Era. In: OECC/PSC 2019 - 24th OptoElectronics and Communications Conference/International Conference Photonics in Switching and Computing 2019 (Editorial). DOI:10.1109/MAES.2019.2934814. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072211515&doi=10.1109%2fMAES.2019.2934814&partnerID=40&md5=d4d3793e43f4aeb8b7b1f3d8d2a8da57>
- Karakuzulu, A. et al. (2019): Low insertion loss d-band SPDT switches using reverse and forward saturated SiGe HBTs. In: IEEE Radio and Wireless Symposium, RWS (Conference Paper). DOI:10.1109/MetaMaterials.2019.8900919. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075605793&doi=10.1109%2fMetaMaterials.2019.8900919&partnerID=40&md5=af60748b705d72864f7906dd7491e4e7>
- Kaynak, C.B. et al. (2019): Mechanical and thermal modeling of an uncooled microbolometer. In: Proceedings of European Microwave Conference in Central Europe, EuMCE 2019 (Conference Paper). DOI:10.1109/MetroAeroSpace.2019.8869563. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074423888&doi=10.1109%2fMetroAeroSpace.2019.8869563&partnerID=40&md5=be6f185d68cd61c2eaba445331dbc1f6>
- Kohler, M. et al. (2019): External Timebase Trials for Phase Coherency of a Bistatic Transfer Function Measurement Setup. In: 2019 Signal Processing Symposium, SPSympo 2019 (Conference Paper). DOI:10.1109/MMS.2018.8612017. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061832246&doi=10.1109%2fMMS.2018.8612017&partnerID=40&md5=00bc0902d3960450f2ab8145e4389dc8>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Kohlhaas, R.B. et al. (2019): THz transceiver with 6.5 THz bandwidth. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1109/MWP.2019.8892257. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075373024&doi=10.1109%2fMWP.2019.8892257&partnerID=40&md5=7c95bb4b7177f835646a0541c03982e7>
- Konforta, A. et al. (2019): A Miniaturized GNSS Controlled Reception Pattern Antenna Array with AMC Virtual Ground Plane. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). DOI:10.1109/MWSCAS.2018.8623931. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062239949&doi=10.1109%2fMWSCAS.2018.8623931&partnerID=40&md5=36baed4d5fa27078f07bb2a1578cd1e0>
- Kopacz, T. et al. (2019): Impact of the Elevation Scanning Angle on the Vertical Compliance Distance of 5G Massive MIMO Antennas. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). DOI:10.1109/NetSys.2019.8854499. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073870963&doi=10.1109%2fNetSys.2019.8854499&partnerID=40&md5=a150dbc4f689cfff82e6a62344bae8f1>
- Kottke, C. et al. (2019): Performance of bandwidth extension techniques for high-speed short-range IM/DD links. In: Journal of Lightwave Technology (Article). DOI:10.1109/NetSys.2019.8854518. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073875750&doi=10.1109%2fNetSys.2019.8854518&partnerID=40&md5=0f18eaf2838e2c24fe4077764ed1247c>
- Kremer, H.I. et al. (2019): Comparison of equivalent circuit models for a multimode dielectric resonator absorber. In: Proceedings of European Microwave Conference in Central Europe, EuMCE 2019 (Conference Paper). DOI:10.1109/PIMRCW.2019.8880829. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074932351&doi=10.1109%2fPIMRCW.2019.8880829&partnerID=40&md5=1d812fd910e3b04f0cfd61d3802095b2>
- Kurras, M. et al. (2019): Evaluation of the Spatial Consistency Feature in the 3GPP Geometry-Based Stochastic Channel Model. In: IEEE Wireless Communications and Networking Conference, WCNC (Conference Paper). DOI:10.1109/RADAR.2019.8835491. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073102139&doi=10.1109%2fRADAR.2019.8835491&partnerID=40&md5=aab063fbad4b7411d47617542d4446a5>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Kuschel, H. et al. (2019): Tutorial: Passive radar tutorial. In: IEEE Aerospace and Electronic Systems Magazine (Article). DOI:10.1109/RADAR.2019.8835500. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073098405&doi=10.1109%2fRADAR.2019.8835500&partnerID=40&md5=976eba01e02a6e96bf1a59b46bab8521>
- Lebedev, V. et al. (2019): Formation of icosahedron twins during initial stages of heteroepitaxial diamond nucleation and growth. In: Journal of Applied Physics (Article). DOI:10.1109/RADAR.2019.8835522. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075495110&doi=10.1109%2fRADAR.2019.8835522&partnerID=40&md5=683775219a08d0ab928d898887780b4d>
- Leon, C.M. et al. (2019): Data-driven generation of road scenarios for radar target simulation in automotive context. In: 2019 IEEE MTT-S International Conference on Microwaves for Intelligent Mobility, ICMIM 2019 (Conference Paper). DOI:10.1109/RADAR.2019.8835704. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073113778&doi=10.1109%2fRADAR.2019.8835704&partnerID=40&md5=9d176f960ad5defcdebe2a4957ef244c>
- Leone, S. et al. (2019): Epitaxial growth optimization of AlGaIn/GaN high electron mobility transistor structures on 3C-SiC/Si. In: Journal of Applied Physics (Article). DOI:10.1109/RADAR.2019.8835754. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073100799&doi=10.1109%2fRADAR.2019.8835754&partnerID=40&md5=9f946e424ba4011ccab4918a52d1a025>
- Leone, S. et al. (2019): Metal-Organic Chemical Vapor Deposition of Aluminum Scandium Nitride. In: Physica Status Solidi - Rapid Research Letters (Article). DOI:10.1109/RADAR.2019.8835841. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073103967&doi=10.1109%2fRADAR.2019.8835841&partnerID=40&md5=934fd4b70e2479b2663e9d2f67ff2840>
- Leone, S. et al. (2019): Optimization of Metal-Organic Chemical Vapor Deposition Regrown n-GaN. In: Physica Status Solidi (B) Basic Research (Article). DOI:10.1109/RADAR.2019.8835842. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073110864&doi=10.1109%2fRADAR.2019.8835842&partnerID=40&md5=4fe19694180142fe1d20c5866269ce3d>
- Leuther, A. et al. (2019): THz Frequency HEMTs: Future Trends and Applications. In: 2019 Compound Semiconductor Week, CSW 2019 - Proceedings (Conference Paper). DOI:10.1109/RWS.2019.8714199. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068703910&doi=10.1109%2fRWS.2019.8714199&partnerID=40&md5=1c219fce9d44d37d217ce9babd64e79c>

Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab Microelectronics Germany (2019)

- Liontas, C.A. (2019): Alternating Projections of Auxiliary Vector Fields for Electric Field Optimization in Temperature-guided Hyperthermia. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). DOI:10.1109/RWS.2019.8714362. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068642715&doi=10.1109%2fRWS.2019.8714362&partnerID=40&md5=d5d8a2543aea326f5e41eba0250be4c2>
- Lisauskas, A. et al. (2019): Terahertz emission from biased AlGaIn/GaN high-electron-mobility transistors. In: Journal of Applied Physics (Article). DOI:10.1109/RWS.2019.8714561. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068707469&doi=10.1109%2fRWS.2019.8714561&partnerID=40&md5=eaf76dc92c8357a177a70873b4b7b99f>
- Lopacinski, L. et al. (2019): Data Link Layer Processor for 100 Gbps Terahertz Wireless Communications in 28 nm CMOS Technology. In: IEEE Access (Article). DOI:10.1109/SPAWC.2019.8815492. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072338470&doi=10.1109%2fSPAWC.2019.8815492&partnerID=40&md5=98adddf612fac86fc66453f1b8b8837d>
- Lopacinski, L. et al. (2019): Modular Data Link Layer Processing for THz communication. In: Proceedings - 2019 22nd International Symposium on Design and Diagnostics of Electronic Circuits and Systems, DDECS 2019 (Conference Paper). DOI:10.1109/SPS.2019.8882056. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074926217&doi=10.1109%2fSPS.2019.8882056&partnerID=40&md5=2a880ce930e3733827a754de3f51e69c>
- Lozar, R. et al. (2019): A Comparative Study of On-Wafer and Waveguide Module S-Parameter Measurements at D-Band Frequencies. In: IEEE Transactions on Microwave Theory and Techniques (Article). DOI:10.1109/SPS.2019.8882098. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074898971&doi=10.1109%2fSPS.2019.8882098&partnerID=40&md5=c1e2a3a0f6a553cb50513e8be8b20adc>
- Lu, J.-H. et al. (2019): Design of a Novel Microstrip Franklin Leaky-Wave Antenna Using the Eigenstate Approach. In: IEEE Transactions on Antennas and Propagation (Article). DOI:10.1109/SSPD.2019.8751657. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069228701&doi=10.1109%2fSSPD.2019.8751657&partnerID=40&md5=7f60debb36bf51cc3c629afb9624a022>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Lüder, A. et al. (2019): Data Exchange Logistics in Engineering Networks Exploiting Automated Data Integration. In: IEEE International Conference on Emerging Technologies and Factory Automation, ETFA (Conference Paper). DOI:10.1109/TAES.2018.2858158. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85050606493&doi=10.1109%2fTAES.2018.2858158&partnerID=40&md5=6b8eb3fa3175e150d1da51562564bd50>
- Luo, P. et al. (2019): A streamlined drain-lag model for GaN HEMTs based on pulsed S-parameter measurements. In: International Journal of Microwave and Wireless Technologies (Article). DOI:10.1109/TAES.2018.2867688. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85050766170&doi=10.1109%2fTAES.2018.2867688&partnerID=40&md5=2b440e631719df499a1f6658d0553afd>
- Maletic, N. et al. (2019): Wireless communication systems in the 240 GHz band: Applications, feasibility and challenges. In: Proceedings of the International Symposium on Wireless Communication Systems (Conference Paper). DOI:10.1109/TAP.2019.2896446. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064273766&doi=10.1109%2fTAP.2019.2896446&partnerID=40&md5=b5d051f0c419ee44cd9703d03756b977>
- Malignaggi, A. et al. (2019): Fully differential 40 GHz amplifier for LO distribution circuitry in 90 nm CMOS technology. In: 8th German Microwave Conference, GeMiC 2014 (Conference Paper). DOI:10.1109/TAP.2019.2911638. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068799225&doi=10.1109%2fTAP.2019.2911638&partnerID=40&md5=5846361ec21ccc994b068e2e8731aec4>
- Manczak, R. et al. (2019): UHF-Dielectrophoresis Crossover Frequency as a New Marker for Discrimination of Glioblastoma Undifferentiated Cells. In: IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology (Article). DOI:10.1109/TBCAS.2019.2898555. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061559393&doi=10.1109%2fTBCAS.2019.2898555&partnerID=40&md5=f29f7c49ef555b1c120c1268779a28ac>
- Mateos-Nunez, D. et al. (2019): Design of mutually incoherent arrays for DoA estimation via group-sparse reconstruction. In: 2019 IEEE Radar Conference, RadarConf 2019 (Conference Paper). DOI:10.1109/TBCAS.2019.2920294. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074744404&doi=10.1109%2fTBCAS.2019.2920294&partnerID=40&md5=247a44ba2f2c62ff33172d7b4eb2d54e>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Maurer, A.-J. (2019): Radarsensoren steigern Effizienz in Produktion und Automation. In: Stahl + Technik (Zeitschriftenaufsatz). DOI:10.1109/TCSI.2018.2880881. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85058124229&doi=10.1109%2fTCSI.2018.2880881&partnerID=40&md5=2964276b8871a2ae0567ece04eb1e9a8>
- Merkle, T. et al. (2019): Broadband 240-GHz Radar for Non-Destructive Testing of Composite Materials. In: IEEE Journal of Solid-State Circuits (Article). DOI:10.1109/TCSI.2019.2893891. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067914401&doi=10.1109%2fTCSI.2019.2893891&partnerID=40&md5=76a7e7462d1bae4b2c00264ee997469d>
- Mesarcik, M.B. et al. (2019): Low cost FPGA based implementation of a DRFM system. In: 2019 IEEE Radar Conference, RadarConf 2019 (Conference Paper). DOI:10.1109/TCSII.2019.2891133. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071874929&doi=10.1109%2fTCSII.2019.2891133&partnerID=40&md5=eca3b497852eae61b1d52948e2f6d1de>
- Miretti, L. et al. (2019): Downlink channel spatial covariance estimation in realistic FDD massive MIMO systems. In: 2018 IEEE Global Conference on Signal and Information Processing, GlobalSIP 2018 - Proceedings (Conference Paper). DOI:10.1109/TED.2019.2907484. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064975283&doi=10.1109%2fTED.2019.2907484&partnerID=40&md5=280e1fef889db1855e041f41e19ac96d>
- Moch, R. et al. (2019): Compensation of Ambiguities in Fast ISAR Measurements. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). DOI:10.1109/TED.2019.2939585. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074448773&doi=10.1109%2fTED.2019.2939585&partnerID=40&md5=2412f6c0b9c8d3e7a0f17957bb6cd242>
- Mogilatenko, A. et al. (2019): Crystal defect analysis in AlN layers grown by MOVPE on bulk AlN. In: Journal of Crystal Growth (Article). DOI:10.1109/TEMC.2018.2838522. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85048574654&doi=10.1109%2fTEMC.2018.2838522&partnerID=40&md5=8d4d4dbb1273a7faac17a76acf90ea98a>
- Montanari, M. et al. (2019): High-Quality n-Type Ge/SiGe Multilayers for THz Quantum Cascade Lasers. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.1109/TEMC.2018.2855040. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85050761862&doi=10.1109%2fTEMC.2018.2855040&partnerID=40&md5=2fd57bf29a0c7f8e119473ece9e34dd8>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Muller, T. et al. (2019): A load balancing surveillance algorithm for multifunctional radar resource management. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.1109/TGRS.2019.2909949. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072039510&doi=10.1109%2fTGRS.2019.2909949&partnerID=40&md5=48bdb1a092851573953935545dc3bf74>
- Nasser, C. et al. (2019): Simulation of the RF Power Performance of a GaN HFET and Comparison to Experiment. In: IEEE Transactions on Electron Devices (Article). DOI:10.1109/TMTT.2018.2889038. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062637083&doi=10.1109%2fTMTT.2018.2889038&partnerID=40&md5=94c540347e5820b9bbaeb007428b39fa>
- Ndip, I. et al. (2019): On the impact of reflector elements of yagi-uda bond wire antennas. In: Proceedings of European Microwave Conference in Central Europe, EuMCE 2019 (Conference Paper). DOI:10.1109/TMTT.2018.2890472. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062627440&doi=10.1109%2fTMTT.2018.2890472&partnerID=40&md5=4acc7ccd6aba68af420282ba23b08d4f>
- Neining, P. (2019): Design, analysis and evaluation of a broadband high-power amplifier for Ka-band frequencies. In: IEEE MTT-S International Microwave Symposium, IMS 2019 (Conference Paper). DOI:10.1109/TMTT.2019.2903400. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065621140&doi=10.1109%2fTMTT.2019.2903400&partnerID=40&md5=457eff96ae6d7e650c0d748d5dcb170e>
- Neining, P. et al. (2019): Investigation of high-efficiency hybrid power combining for Ka-band frequencies. In: Asia-Pacific Microwave Conference Proceedings, APMC (Conference Paper). DOI:10.1109/TMTT.2019.2908857. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067100543&doi=10.1109%2fTMTT.2019.2908857&partnerID=40&md5=b4dc70a221dfc6a65a188d8649106b03>
- Ng, H.J. et al. (2019): On-chip antennas in SiGe BiCMOS technology: Challenges, state of the art and future directions. In: Asia-Pacific Microwave Conference Proceedings, APMC (Conference Paper). DOI:10.1109/TMTT.2019.2919538. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071073140&doi=10.1109%2fTMTT.2019.2919538&partnerID=40&md5=77ce13956afeb6bb1d43bb07c0a5720b>
- Nüßler, D. et al. (2019): THz imaging for recycling of black plastics. In: 8th German Microwave Conference, GeMiC 2014 (Conference Paper). DOI:10.1109/TMTT.2019.2936558. Link:
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072520107&doi=10.1109%2fTMTT.2019.2936558&partnerID=40&md5=a81fa90fa148f3599cbe7cb3ee953959>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- O'Hagan, D.W. et al. (2019): Overview of Electronic Attacks Against Passive Radar. In: 2019 International Applied Computational Electromagnetics Society Symposium in Miami, ACES-Miami 2019 (Conference Paper). DOI:10.1109/TTHZ.2019.2910511. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064617711&doi=10.1109%2fTTHZ.2019.2910511&partnerID=40&md5=b8915255a350e027db4ca696116cc23a>
- Paine, S. et al. (2019): Evaluating the Performance of FM-Based PCL Radar in the Presence of Jamming. In: IEEE Transactions on Aerospace and Electronic Systems (Article). DOI:10.1109/TTHZ.2019.2917782. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068477524&doi=10.1109%2fTTHZ.2019.2917782&partnerID=40&md5=db58b59463ef5a8fe89da1dea91596f0>
- Palm, S. et al. (2019): Airborne circular W-Band SAR for multiple aspect urban site monitoring. In: IEEE Transactions on Geoscience and Remote Sensing (Article). DOI:10.1109/TTHZ.2019.2950123. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074521046&doi=10.1109%2fTTHZ.2019.2950123&partnerID=40&md5=1944365cf6bf394ec895743870041d4d>
- Pamies, M. et al. (2019): Experimental interference analysis of an S-band AESA antenna demonstrator. In: 8th German Microwave Conference, GeMiC 2014 (Conference Paper). DOI:10.1109/TVT.2019.2914337. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069765626&doi=10.1109%2fTVT.2019.2914337&partnerID=40&md5=70622f61553f1571d27efb7eb73e6ae6>
- Paoloni, C. et al. (2019): Sub-THz components for high capacity point to multipoint wireless networks. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.1109/TWC.2018.2879661. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85056580280&doi=10.1109%2fTWC.2018.2879661&partnerID=40&md5=bd7eb4542d2f3917d81f6ee78db31a77>
- Paolucci, F. et al. (2019): OpenConfig Control of 100G/400G Filterless Metro Networks with configurable Modulation Format and FEC. In: 2019 Optical Fiber Communications Conference and Exhibition, OFC 2019 - Proceedings (Conference Paper). DOI:10.1109/VTCFall.2019.8891530. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075231694&doi=10.1109%2fVTCFall.2019.8891530&partnerID=40&md5=8252e2ffc9123d4c1a8151d7e1a43f98>
- Parker, A. et al. (2019): Self-interference cancellation for simultaneous transmit and receive applications. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.1109/WCNC.2019.8885561. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074789120&doi=10.1109%2fWCNC.2019.8885561&partnerID=40&md5=0544f23f5cbf23c592583afde1acef22>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Patzelt, T. et al. (2019): Chirp filter bank for selective tracking of space objects on almost identical orbits. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.1109/WCNC.2019.8886072. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074767229&doi=10.1109%2fWCNC.2019.8886072&partnerID=40&md5=ac83d1a6d0f9b62970bf1e098806c4e6>
- Pavan, G. et al. (2019): Multipath effect on radar cross section measurements in natural environment and related correction. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.1109/WCNCW.2019.8902699. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075235388&doi=10.1109%2fWCNCW.2019.8902699&partnerID=40&md5=37bad8a2d9e6ee844dca80e689985b56>
- Petri, M. et al. (2019): A SoC-based SDR platform for ultra-high data rate broadband communication, radar and localization systems. In: IFIP Wireless Days (Conference Paper). DOI:10.1109/WD.2019.8734240. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068567370&doi=10.1109%2fWD.2019.8734240&partnerID=40&md5=2ddd518332af7dd826c55072e719b32a>
- Phan, A. et al. (2019): Total rotational velocity estimation in a multistatic ISAR system. In: IET Radar, Sonar and Navigation (Article). DOI:10.1116/1.5086020. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062589243&doi=10.1116%2f1.5086020&partnerID=40&md5=74d0deb91472ddf77ead5fceed41ec04>
- Phung, G.N. et al. (2019): Crosstalk Effects of Differential Thin-Film Microstrip Lines in Multilayer Motherboards. In: GeMiC 2019 - 2019 German Microwave Conference (Conference Paper). DOI:10.1155/2019/8342167. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065611204&doi=10.1155%2f2019%2f8342167&partnerID=40&md5=0543e5b4da78175a1e97978d1111ada5>
- Phung, G.N. et al. (2019): Influence of microwave probes on calibrated on-wafer measurements. In: IEEE Transactions on Microwave Theory and Techniques (Article). DOI:10.1364/OPTICA.6.001063. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073370587&doi=10.1364%2fOPTICA.6.001063&partnerID=40&md5=33ca3e110bd9444cf1346ede3aac0351>
- Pisciotto, I. et al. (2019): DVB-S based passive radar imaging of ship targets. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.1515/teme-2019-0085. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072300391&doi=10.1515%2f teme-2019-0085&partnerID=40&md5=f69bfd4cb84bee2b875e3a98bf430926>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Pisciotano, I. et al. (2019): Maritime target imaging via simultaneous DVB-T and DVB-S passive ISAR. In: IET Radar, Sonar and Navigation (Conference Paper). DOI:10.23919/APMC.2018.8617171. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061819856&doi=10.23919%2fAPMC.2018.8617171&partnerID=40&md5=1f30cd0d53157d2e167cc99eeac649c3>
- Platz, F. et al. (2019): 2.45 GHz ISM-band RF-PA demonstrator for GaN-HEMT optimization. In: 8th German Microwave Conference, GeMiC 2014 (Conference Paper). DOI:10.23919/APMC.2018.8617213. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061832675&doi=10.23919%2fAPMC.2018.8617213&partnerID=40&md5=2f951d42f9e73bacd4fb8ea0ed7d4636>
- Pollakis, E. et al. (2019): Anticipatory networking for energy savings in 5G systems. In: WSA 2016 - 20th International ITG Workshop on Smart Antennas (Conference Paper). DOI:10.23919/APMC.2018.8617373. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061794643&doi=10.23919%2fAPMC.2018.8617373&partnerID=40&md5=740e8c79584fda78a92edbd0f622874a>
- Porteanu, H.-E. et al. (2019): Correlated mode analysis of a microwave driven ICP source. In: Plasma Sources Science and Technology (Article). DOI:10.23919/APMC.2018.8617424. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061825122&doi=10.23919%2fAPMC.2018.8617424&partnerID=40&md5=89d895192fd83898cc5bf81a0d4c3df1>
- Ramírez, W. et al. (2019): Cryogenic Operation of a Millimeter-Wave SiGe BiCMOS Low-Noise Amplifier. In: IEEE Microwave and Wireless Components Letters (Article). DOI:10.23919/APMC.2018.8617582. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061792257&doi=10.23919%2fAPMC.2018.8617582&partnerID=40&md5=dbef57e5f2b6a1f265daeddf14fc5bfc>
- Ramudzuli, Z. et al. (2019): A GPS time-pulse radiator for measuring time-stamp accuracy of a radio telescope array. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.23919/APMC.2018.8617626. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061770112&doi=10.23919%2fAPMC.2018.8617626&partnerID=40&md5=a406692d98ec9f0b184d4d671525f6a5>
- Reiner, R. (2019): Diamond Schottky-Diode in a non-isolated buck converter. In: PCIM Europe 2019, International Exhibition and Conference for Power Electronics, Intelligent Motion, Renewable Energy and Energy Management. CD-ROM (Conference Paper). DOI:10.23919/GEMIC.2019.8698128. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065521704&doi=10.23919%2fGEMIC.2019.8698128&partnerID=40&md5=7dfa13a767161196cccdf6448c9886af>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Richter, E. et al. (2019): Growth and Properties of Intentionally Carbon-Doped GaN Layers. In: Crystal Research and Technology (Article). DOI:10.23919/GEMIC.2019.8698132. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065538415&doi=10.23919%2fGEMIC.2019.8698132&partnerID=40&md5=21d3117c3ec9713554ef38d45c8b52b9>
- Robin, C. et al. (2019): Reliability evaluation of a 0.25 μm SiGe technology for space applications. In: Microelectronics Reliability (Article). DOI:10.23919/GEMIC.2019.8698140. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065512823&doi=10.23919%2fGEMIC.2019.8698140&partnerID=40&md5=5dc241bbde09c21bc3fd9615f976b41>
- Rodriguez-Vazquez, P. et al. (2019): A 16-QAM 100-Gb/s 1-M Wireless Link with an EVM of 17% at 230 GHz in an SiGe Technology. In: IEEE Microwave and Wireless Components Letters (Article). DOI:10.23919/GEMIC.2019.8698152. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065519315&doi=10.23919%2fGEMIC.2019.8698152&partnerID=40&md5=f3941212c0b23b5e13968d9febca085b>
- Rodríguez-Vázquez, P. et al. (2019): Performance evaluation of a 32-QAM 1-meter wireless link operating at 220-260 GHz with a data-rate of 90 Gbps. In: Asia-Pacific Microwave Conference Proceedings, APMC (Conference Paper). DOI:10.23919/GEMIC.2019.8698163. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065549030&doi=10.23919%2fGEMIC.2019.8698163&partnerID=40&md5=33276c0ec1995eee2432dbebe984096b>
- Rothbart, N. et al. (2019): A Compact Circular Multipass Cell for Millimeter-Wave/Terahertz Gas Spectroscopy. In: IEEE Transactions on Terahertz Science and Technology (Article). DOI:10.23919/GEMIC.2019.8698169. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065527013&doi=10.23919%2fGEMIC.2019.8698169&partnerID=40&md5=e71c20c3922075b0c9735d74cdbcd0f4>
- Rothbart, N. et al. (2019): Analysis of human breath by millimeter-wave/terahertz spectroscopy. In: Sensors (Switzerland) (Article). DOI:10.23919/GEMIC.2019.8698186. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065533498&doi=10.23919%2fGEMIC.2019.8698186&partnerID=40&md5=41d67d31d8270cfb0eb9387ed343110d>
- Rothbart, N. et al. (2019): Gas Spectroscopy at 222-270 GHz Based on SiGe BiCMOS using a Multi-Pass Ring Cell. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.23919/IRS.2019.8767454. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069925832&doi=10.23919%2fIRS.2019.8767454&partnerID=40&md5=b8532d6b4ee25893db232d3d455a1845>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Rudolph, M. et al. (2019): Bias-dependent popieszalski noise model for GaN HEMT devices. In: 8th German Microwave Conference, GeMiC 2014 (Conference Paper). DOI:10.23919/IRS.2019.8768086. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069932346&doi=10.23919%2fIRS.2019.8768086&partnerID=40&md5=b8f9682ca0f9be0d45579e18520af036>
- Santos, R. et al. (2019): MmWave Backhaul Testbed Configurability Using Software-Defined Networking. In: Wireless Communications and Mobile Computing (Article). DOI:10.23919/IRS.2019.8768097. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069947660&doi=10.23919%2fIRS.2019.8768097&partnerID=40&md5=f054ae6ed07cdcb3ca3c4350aec9476b>
- Santoso, S.A. et al. (2019): High gain resonant cavity antenna integrated with frequency selective surface radome absorber. In: 2019 13th International Congress on Artificial Materials for Novel Wave Phenomena, Metamaterials 2019 (Conference Paper). DOI:10.23919/IRS.2019.8768104. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069903064&doi=10.23919%2fIRS.2019.8768104&partnerID=40&md5=e6134f6e470b63e20712a07e4aeec357>
- Sark, V. et al. (2019): Achieving Millimeter Precision Distance Estimation using Two-Way Ranging in the 60 GHz Band. In: 2019 European Conference on Networks and Communications, EuCNC 2019 (Conference Paper). DOI:10.23919/IRS.2019.8768115. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069908211&doi=10.23919%2fIRS.2019.8768115&partnerID=40&md5=6296f2805f8cbddf1046aaf9153068a3>
- Savci, K. et al. (2019): Trials of a noise-modulated radar demonstrator-first results in a marine environment. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.23919/IRS.2019.8768125. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069896300&doi=10.23919%2fIRS.2019.8768125&partnerID=40&md5=01bf024eb60e60275365472b7b420700>
- Schemer, J. et al. (2019): Motion trajectory information in the ISAR imaging process. In: 2019 IEEE Radar Conference, RadarConf 2019 (Conference Paper). DOI:10.23919/IRS.2019.8768139. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069907329&doi=10.23919%2fIRS.2019.8768139&partnerID=40&md5=303151149361fcfd7182a7b3883dd8a5>
- Schmalz, K. et al. (2019): Transmitters and receivers in SiGe BiCMOS technology for sensitive gas spectroscopy at 222 - 270 GHz. In: AIP Advances (Article). DOI:10.23919/IRS.2019.8768143. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069942470&doi=10.23919%2fIRS.2019.8768143&partnerID=40&md5=bdc92fef3e23c8e6a0e1ba7eccddf0c>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Schmidt, C. et al. (2019): Behavioral model for a high-speed 2:1 analog multiplexer. In: Midwest Symposium on Circuits and Systems (Conference Paper). DOI:10.23919/IRS.2019.8768148. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069924132&doi=10.23919%2fIRS.2019.8768148&partnerID=40&md5=4a951f6897b1c6e59dcdb1ea274ebb22>
- Schneckenburger, N. et al. (2019): Wideband air-ground channel model for a regional airport environment. In: IEEE Transactions on Vehicular Technology (Article). DOI:10.23919/IRS.2019.8768149. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069892313&doi=10.23919%2fIRS.2019.8768149&partnerID=40&md5=4df4a01569a5c63602c9d871d940aea5>
- Schneider, D.A. et al. (2019): A Low-Loss W-Band Frequency-Scanning Antenna for Wideband Multichannel Radar Applications. In: IEEE Antennas and Wireless Propagation Letters (Article). DOI:10.23919/IRS.2019.8768157. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069922975&doi=10.23919%2fIRS.2019.8768157&partnerID=40&md5=b1d2f531bd4b7fa8c2cda1705de01f75>
- Schoch, B. et al. (2019): 260 GHz Broadband Power Amplifier MMIC. In: GeMiC 2019 - 2019 German Microwave Conference (Conference Paper). DOI:10.23919/IRS.2019.8768163. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069930284&doi=10.23919%2fIRS.2019.8768163&partnerID=40&md5=34b74f1162a2c6a6e7f36ef659e1a6cd>
- Schoch, B. et al. (2019): 300 GHz broadband power amplifier with 508 GHz gain-bandwidth product and 8 dBm output power. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper). DOI:10.23919/IRS.2019.8768175. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069926032&doi=10.23919%2fIRS.2019.8768175&partnerID=40&md5=23a17037a94009d7dc7f6e393d1dd4d0>
- Schraml, K. et al. (2019): Application of Sequential Rotation Technique on Monopulse Radar Antennas. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). DOI:10.23919/IRS.2019.8768188. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069920360&doi=10.23919%2fIRS.2019.8768188&partnerID=40&md5=789b95463710c178c7d2fa54919cfc36>
- Schwind, A. et al. (2019): Bi-static delay-Doppler emulation of cooperative passive vehicle-to-X radar. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). DOI:10.23919/IRS.2019.8768190. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069921414&doi=10.23919%2fIRS.2019.8768190&partnerID=40&md5=673377025b851ea0dc494ed5a81f0b14>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Seyyedesfahlan, M. et al. (2019): Two-Element Antenna-Active Phase Shifter Packaging at 77 GHz. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). DOI:10.23919/IRS.2019.8768192. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069892442&doi=10.23919%2fIRS.2019.8768192&partnerID=40&md5=7f52e94bb4fbf4c4d527920b8d76bcb>
- Shariati, B. et al. (2019): Photonics-supported 5G test facilities for low latency applications. In: International Conference on Transparent Optical Networks (Conference Paper). DOI:10.23919/IRS.2019.8768194. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069939231&doi=10.23919%2fIRS.2019.8768194&partnerID=40&md5=947d2c7cc55a27ea76df8c279fd7d98d>
- Shivan, T. et al. (2019): A 175 GHz Bandwidth High Linearity Distributed Amplifier in 500 nm InP DHBT Technology. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper). DOI:10.23919/PS.2019.8818163. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072320784&doi=10.23919%2fPS.2019.8818163&partnerID=40&md5=6ee967250734b2c7cfc235c0ed13f095>
- Shivan, T. et al. (2019): Design and modeling of an ultra-wideband low-noise distributed amplifier in InP DHBT technology. In: International Journal of Microwave and Wireless Technologies (Conference Paper). DOI:10.33012/2019.16982. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075266731&doi=10.33012%2f2019.16982&partnerID=40&md5=a1d2e968429380ab33899e3596647f7f>
- Shivan, T. et al. (2019): Highly linear 90-170 GHz SPDT Switch with High Isolation for Fully Integrated InP Transceivers. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper). DOI:10.33012/2019.17023. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075267277&doi=10.33012%2f2019.17023&partnerID=40&md5=615ac453c78f781866e7059de9038941>
- Smith, J. et al. (2019): Beam Profile Investigation of an Optoelectronic Continuous-Wave Terahertz Emitter. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.3390/app9091907. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067205508&doi=10.3390%2fapp9091907&partnerID=40&md5=e6bda02369bfcac6cb887bc4739c8b4e>
- Solomakha, G. et al. (2019): The dual-mode dipole: A new array element for 7T body imaging with reduced SAR. In: Magnetic Resonance in Medicine (Article). DOI:10.3390/fi11090193. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073808940&doi=10.3390%2ffi11090193&partnerID=40&md5=c8744b4c1cd071a3653494d3657a6a81>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Song, X. et al. (2019): Sequential Channel Equalization in Strong Line-of-Sight MIMO Communication. In: IEEE Transactions on Wireless Communications (Article). DOI:10.3390/mi10100632. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073223202&doi=10.3390%2fmi10100632&partnerID=40&md5=c130c490b36f53a54afb9186dd8e3402>
- Stahlke, M. et al. (2019): Discrete positioning using UWB channel impulse responses and machine learning. In: 2019 International Conference on Localization and GNSS, ICL-GNSS 2019 - Proceedings (Conference Paper). DOI:10.3390/s19122719. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068448293&doi=10.3390%2fs19122719&partnerID=40&md5=97e4c646e087c5f17b21e54703a4960a>
- Stark, D. et al. (2019): N-Type Ge/SiGe quantum cascade heterostructures for THz emission. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.5194/ars-17-71-2019. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072540656&doi=10.5194%2fars-17-71-2019&partnerID=40&md5=1db438b879658d87cd91f0b32eb57399>
- Stark, D. et al. (2019): Si-based n-type THz Quantum Cascade Emitter. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.7567/1347-4065/ab124f. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070767260&doi=10.7567%2f1347-4065%2fab124f&partnerID=40&md5=435d85126af0f5ed458d9f761fee05cc>
- Steglich, P. et al. (2019): Quadratic electro-optical silicon-organic hybrid RF modulator in a photonic integrated circuit technology. In: Technical Digest - International Electron Devices Meeting, IEDM (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064909019&partnerID=40&md5=6ea90a6d42d811af58411f5531d4b5a7>
- Stoppel, D. et al. (2019): NiCr resistors for terahertz applications in an InP DHBT process. In: Microelectronic Engineering (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065473568&partnerID=40&md5=964007649bcc7ad20afb5106ca464a04>
- Tabakoya, T. et al. (2019): High-Rate Growth of Single-Crystalline Diamond (100) Films by Hot-Filament Chemical Vapor Deposition with Tantalum Filaments at 3000 °C. In: Physica Status Solidi (A) Applications and Materials Science (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065482515&partnerID=40&md5=3d30bd24c0085aaa359c638af4f1299a>
- Tessmann, A. et al. (2019): 20-nm In_{0.8}Ga_{0.2}As MOSHEMT MMIC Technology on Silicon. In: IEEE Journal of Solid-State Circuits (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065507915&partnerID=40&md5=0a4d575d98a22fdc2e8c5024219321ba>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Thome, F. (2019): Millimeter-wave single-pole double-throw switches based on a 100-nm gate-length AlGaIn/GaN-HEMT technology. In: IEEE MTT-S International Microwave Symposium, IMS 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066492221&partnerID=40&md5=f9b71e018f31b2d8077d2ec2703d79f7>
- Thome, F. (2019): W-Band LNA MMICs based on a noise-optimized 50-nm gate-length metamorphic HEMT Technology. In: IEEE MTT-S International Microwave Symposium, IMS 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066492688&partnerID=40&md5=f320d837e4b295b72abe4ce0b52fd714>
- Tiwari, K.K. et al. (2019): Beam entropy of 5G cellular millimetre-wave channels. In: IEEE Vehicular Technology Conference (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067039177&partnerID=40&md5=bf23304fe3fef5ef14e4ee5b404e3203>
- Tiwari, K.K. et al. (2019): Noise performance of orthogonal RF beamforming for THz radio communications. In: 2019 IEEE 9th Annual Computing and Communication Workshop and Conference, CCWC 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068133242&partnerID=40&md5=a54d836e592845f6d90e96df01be837a>
- Tollkühn, A. (2019): Satellitengestützte Fahrzeuglokalisierung in urbanen Umgebungen. In: (Dissertation). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068433534&partnerID=40&md5=56122f0ad88fd0b1a970ff9c18714f54>
- Tran, G.K. et al. (2019): Outdoor Experiment of mmWave Meshed Backhaul for Realtime Edge Content Delivery. In: 2019 IEEE Wireless Communications and Networking Conference Workshop, WCNCW 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068437040&partnerID=40&md5=0965c915c4768c07b8d80fbac8a0ce49>
- Ture, E. (2019): High-power (>2 W) E-band PA MMIC based on high efficiency GaN-HEMTs with optimized buffer. In: IEEE MTT-S International Microwave Symposium, IMS 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068450051&partnerID=40&md5=b6d420d4e06b808fa2c2837057c8e066>
- Ummenhofer, M. (2019): Validation of Wind Turbine Doppler Signatures in a Passive Bistatic Radar with a Point Scatterer Model. In: 2019 International Applied Computational Electromagnetics Society Symposium in Miami, ACES-Miami 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068450582&partnerID=40&md5=810679bd285ca96ff7b5e968a0c3a9b3>
- Ummenhofer, M. et al. (2019): Direction of arrival estimation techniques for passive radar based 3D target localization. In: 2019 IEEE Radar Conference, RadarConf 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068452596&partnerID=40&md5=59450a14c8a3d64ecb550f8853906c97>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Ummethala, S. et al. (2019): THz-to-optical conversion in wireless communications using an ultra-broadband plasmonic modulator. In: Nature Photonics (Letter). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068458933&partnerID=40&md5=1e012c2745cc1ab95de424cc6596d593>
- Urquijo, S. et al. (2019): A highly integrated dual-channel configurable gnss receiver front-end for wideband reception. In: Proceedings of the 32nd International Technical Meeting of the Satellite Division of the Institute of Navigation, ION GNSS+ 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068465107&partnerID=40&md5=e8fadbe35eb3b0c957e949946b0fb405>
- Urso, A. et al. (2019): An Ultra High-Frequency 8-Channel Neurostimulator Circuit with 68 Peak Power Efficiency. In: IEEE Transactions on Biomedical Circuits and Systems (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068465118&partnerID=40&md5=2eb93f7ec3994eb7c86e80ad426488fd>
- Urso, A. et al. (2019): Correction: Comments on 'Compact, energy-efficient high-frequency switched capacitor neural stimulator with active charge balancing (IEEE Transactions on Biomedical Circuits and Systems (2017) 11:4 (878–888) DOI: 10.1109/TBCAS.2017.2694144). In: IEEE Transactions on Biomedical Circuits and Systems (Erratum). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068465276&partnerID=40&md5=2c0a28b5494f1675e9a9cdb7bd75bfea>
- Ustundag, B. et al. (2019): High responsivity power detectors for W/D-bands passive imaging systems in 0.13 μm SiGe BiCMOS technology. In: Asia-Pacific Microwave Conference Proceedings, APMC (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068466571&partnerID=40&md5=0ff6feeb24b8248ff12bc6138597bfa4>
- Ustundag, B. et al. (2019): Low-noise amplifiers for W-band and D-band passive imaging systems in SiGe BiCMOS technology. In: Asia-Pacific Microwave Conference Proceedings, APMC (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068471389&partnerID=40&md5=6ba073dd321771884d1cade6f7e53a77>
- Valerio, P. et al. (2019): A monolithic ASIC demonstrator for the Thin Time-of-Flight PET scanner. In: Journal of Instrumentation (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068477059&partnerID=40&md5=483f44bdea86513832a35a51c1012df5>
- Van Der Merwe, J.R. et al. (2019): Blind spoofing detection using a multi-antenna snapshot receiver. (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069952270&partnerID=40&md5=449d21fd4288878897dae33dda57f29c>
- Van Der Merwe, J.R. et al. (2019): Multi-antenna snapshot receiver. In: European Navigation Conference, ENC 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069952566&partnerID=40&md5=af36c10be0c6548fe8283168aaf255ab>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Vaupel, T. (2019): A MFIE/EFIE fast multipole volume/surface integral equation approach for substrate integrated waveguide structures and leaky-wave/slot antennas using the duality principle. In: Proceedings of the 2019 21st International Conference on Electromagnetics in Advanced Applications, ICEAA 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069955058&partnerID=40&md5=5e9d4c77603db88a3a0cf97a207b007f>
- Vaupel, T. et al. (2019): Design of leaky-wave antennas with transverse slots for end-fire radiation with optimized radiation efficiency. In: Advances in Radio Science (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069958024&partnerID=40&md5=8ff07624324eaa36ece2968887015c84>
- Vizcarro, M. et al. (2019): A Dual-polarized X-band Patch Antenna Sub-array with Low Cross-polarization for Weather Radar Applications. In: Proceedings International Radar Symposium (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069959105&partnerID=40&md5=9b5dc0d13a8e53c3d2b95e2ce2241503>
- Volk, F. et al. (2019): Concept and evaluation of mobile cell connectivity over a satellite backhaul for future 5G networks. In: 2018 IEEE Global Conference on Signal and Information Processing, GlobalSIP 2018 - Proceedings (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069959309&partnerID=40&md5=5ccde14cc6074aba55c23905f1f14434>
- Völk, F. et al. (2019): Satellite integration into 5G: Accent on first over-the-air tests of an edge node concept with integrated satellite backhaul. In: Future Internet (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069967919&partnerID=40&md5=af2aa3c272234e84eedc83b639f54177>
- Vural, M. et al. (2019): On some physical layer design aspects for machine type communication. In: WSA 2016 - 20th International ITG Workshop on Smart Antennas (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069969150&partnerID=40&md5=8998a21ece6f2e85fd41e8e63f3c6ad2>
- Wald, S.O. et al. (2019): Fast Ray-Optical Simulation of Rotating Wind Turbines. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069969479&partnerID=40&md5=93f629e593a7a87cb68b4d3538b6f528>
- Wald, S.O. et al. (2019): Ray Tracing for Range-Doppler Simulation of 77 GHz Automotive Scenarios. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069973838&partnerID=40&md5=5a0344041fe7d85e9bc61be88e96e82e>
- Wang, D. et al. (2019): 207-257 GHz Integrated Sensing Readout System with Transducer in a 130-nm SiGe BiCMOS Technology. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069975071&partnerID=40&md5=6f7d9a15c8c4e6d1e06bdb9f947a079e>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Wang, D. et al. (2019): On-chip scalable resonator-based transducers for terahertz dielectric sensing in SiGe BiCMOS technology. In: Asia-Pacific Microwave Conference Proceedings, APMC (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073147457&partnerID=40&md5=5819708aa610308ac359b9aeaa731780>
- Wang, S. et al. (2019): 3D localization and vital sign detection of human subjects with a 120 GHz MIMO radar. In: Proceedings International Radar Symposium (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073148102&partnerID=40&md5=8d392bfeaa5fde463f9b3b86b3e23520>
- Wang, X.Y. et al. (2019): ISAR Tomography for Full-Polarimetric 3-D Radar Cross-Section Measurements. In: IEEE Transactions on Antennas and Propagation (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073148359&partnerID=40&md5=fcfaf2a92bea3064fee18accf9491cf6>
- Wasserzier, C. et al. (2019): A concept for far field measurements of large dimension antennas in an open area test site performed by UAS. In: Proceedings International Radar Symposium (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073151103&partnerID=40&md5=6ab5fdcc515c6c2f4888e0f1bdb61a37>
- Wasserzier, C. et al. (2019): First experimental results on the feasibility of noise radar systems on fast moving platforms. In: Electronics Letters (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073151126&partnerID=40&md5=1a264259ea5dcae1777b961d3610f27f>
- Wasserzier, C. et al. (2019): How noise radar technology brings together active sensing and modern electronic warfare techniques in a combined sensor concept. In: 2019 Sensor Signal Processing for Defence Conference, SSPD 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073153605&partnerID=40&md5=85b605f4335c124cb1c48e722b7e4f84>
- Wasserzier, C. et al. (2019): On the efficient computation of range and Doppler data in noise radar. In: International Journal of Microwave and Wireless Technologies (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073156313&partnerID=40&md5=de1e11b987ce3db2a431de873e236d6d>
- Wasserzier, C. et al. (2019): Verification of a continuous wave noise radar. In: Proceedings International Radar Symposium (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073159003&partnerID=40&md5=f3683a853379eef73478de6f4cdb5e4>
- Weinmann, F. et al. (2019): An overview of the EDA-Workshop 'radar signatures em benchmarks'. In: Proceedings of the 2019 21st International Conference on Electromagnetics in Advanced Applications, ICEAA 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073163461&partnerID=40&md5=5cc9d9ec692b11745b8f3e49e6a52056>

Research Fab Microelectronics Germany – Microwave & Terahertz
**Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab
Microelectronics Germany (2019)**

- Weis, M. et al. (2019): Aspects of next generation sensor/radar networks. In: Proceedings International Radar Symposium (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073168342&partnerID=40&md5=b3678abe87fc7daf73e23248e839ed93>
- Weis, M. et al. (2019): Integrated 2-b Riemann Pump RF-DAC in GaN Technology for 5G Base Stations. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073378323&partnerID=40&md5=7271ba815075bce9935bcacb6c6f60ea>
- Weishaupt, F. et al. (2019): Polarimetric radar for automotive self-localization. In: Proceedings International Radar Symposium (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073532912&partnerID=40&md5=a9bd81fda76624f971b1c7a238298981>
- Welp, B. (2019): Systemkonzept und Schaltungen für breitbandige MIMO-FMCW-Radarsysteme bis 60 GHz in modernen SiGe-Bipolartechnologien. In: Zugl.: Bochum, Univ., Diss., 2019 (Dissertation). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073547024&partnerID=40&md5=b1cf64d1020d52e60a3597b4b9e4802d>
- Wendel, J. et al. (2019): Impact of receiver front-end characteristics on high order BOC tracking. In: Proceedings of the 32nd International Technical Meeting of the Satellite Division of the Institute of Navigation, ION GNSS+ 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073549426&partnerID=40&md5=ab5a63199c9ab70fc9c38d65d07befa9>
- Wentzel, A. et al. (2019): A highly efficient GHz switching GaN-based synchronous buck converter module. In: Proceedings of European Microwave Conference in Central Europe, EuMCE 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073571352&partnerID=40&md5=76698d1d030070d2a6489d254d49aef4>
- Wentzel, A. et al. (2019): Reconfigurable GaN Digital Tx Applying BST Bandpass Filter. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074396926&partnerID=40&md5=d5b090ccf0d2db0a2ad9674c7089234b>
- Wieruch, D. et al. (2019): Wireless factory automation: Radio channel evolution in repeated manufacturing processes. In: WSA 2016 - 20th International ITG Workshop on Smart Antennas (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074402532&partnerID=40&md5=1abe53196529c695b219daa698ff2d4d>
- Wietstruck, M. et al. (2019): Al-Al direct bonding with sub- μm alignment accuracy for millimeter wave SiGe BiCMOS wafer level packaging and heterogeneous integration. In: Proceedings - Electronic Components and Technology Conference (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074422657&partnerID=40&md5=cb2ad8480c19554c804c7650a36b248e>

Publications from the Technology Platform “Microwave & Terahertz” of the Research Fab Microelectronics Germany (2019)

- Wirth, T. et al. (2019): Evaluation of Self-Calibration Techniques for NR Massive MIMO Systems. In: Conference Record - Asilomar Conference on Signals, Systems and Computers (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074423686&partnerID=40&md5=a1877c62306d1511c4f63ca66e56c4a8>
- Wojaczek, P. et al. (2019): Minimum variance power spectrum based calibration for improved clutter suppression in PCL on moving platforms. In: 2019 IEEE Radar Conference, RadarConf 2019 (Conference Paper).
- Wojaczek, P. et al. (2019): Reciprocal-Filter-Based STAP for Passive Radar on Moving Platforms. In: IEEE Transactions on Aerospace and Electronic Systems (Article).
- Wolff, N. et al. (2019): Class-G Supply Modulation for MIMO and Radar with Phased Array Antennas. In: GeMiC 2019 - 2019 German Microwave Conference (Conference Paper).
- Wolff, S. et al. (2019): Quasi-Freestanding Graphene on SiC(0001) by Ar-Mediated Intercalation of Antimony: A Route Toward Intercalation of High-Vapor-Pressure Elements. In: Annalen der Physik (Article).
- Yadav, R.K. et al. (2019): A 60 GHz ring sensor with differential feed-lines for dielectric spectroscopy in biomedical applications. In: IEEE Radio and Wireless Symposium, RWS (Conference Paper).
- Yazdi, G.R. et al. (2019): Effect of epitaxial graphene morphology on adsorption of ambient species. In: Applied Surface Science (Article).
- Yodprasit, U. et al. (2019): A Fully-Integrated 60-GHz Voltage-Controlled Oscillator Synchronized by Optoelectronic Signal. In: 2018 25th IEEE International Conference on Electronics Circuits and Systems, ICECS 2018 (Conference Paper).
- Yoshikawa, T. et al. (2019): Influence of substrate holder configurations on bias enhanced nucleation area for diamond heteroepitaxy: Toward wafer-scale single-crystalline diamond synthesis. In: Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics (Article).
- Zandamela, A.A. et al. (2019): On the Efficiency of Miniaturized 360° Beam-Scanning Antenna. In: 13th European Conference on Antennas and Propagation, EuCAP 2019 (Conference Paper).
- Zhou, J. et al. (2019): A Silicon Based 4.5-GHz Near-field Capacitive Sensing Imaging Array. In: IEEE MTT-S International Microwave Symposium Digest (Conference Paper).
- Zielinski, E. et al. (2019): Secure real-time communication and computing infrastructure for industry 4.0 - Challenges and opportunities. In: Proceedings of the 2019 International Conference on Networked Systems, NetSys 2019 (Conference Paper).
- Zink, A. et al. (2019): How will digital FM transform FM radio broadcasting: Suggested way forward. In: ABU Technical Review (Article).