

Uwe Siart

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Personal details

Gender male

Nationality german

Born 1969 in Bayreuth, Germany

Current position Senior Research Associate at the Chair of High-Frequency Engineering of the Technical University of Munich

Education

7/2005 **Dr.-Ing.**, Technical University of Munich, Chair of High-Frequency Engineering.
Topic: Model Based Signal Processing for Mutually Incoherent Radar Sensors

7/1996 **Dipl.-Ing.**, Friedrich-Alexander-Universität Erlangen-Nürnberg.
Electrical Engineering, branch of study: Communications Engineering

Experience

since 6/2005 Senior Research Associate at the Chair of High-Frequency Engineering of the Technical University of Munich, third-party funds applications, research proposals, project management

10/2011–09/2016 Associate Professorship of Electromagnetic Compatibility and Wave Propagation at the Technical University of Munich

11/1996–6/2005 Research Associate and doctoral candidate at the Chair of High-Frequency Engineering of the Technical University of Munich, IT supervisor, webmaster

Research

since 10/2008 Methods for modeling of electromagnetic fields and radiation under stochastic boundary conditions, remote sensing of ground precipitation by terrestrial microwave links, signal processing for high-frequency sensors in production engineering

7/2005–9/2008 Electromagnetic properties of nano coatings, effect of mutual coupling in array antennas on system performance, system identification for efficient modeling of distributed microwave structures

6/2001–6/2005 Methods for coherent processing of radar information from multiple incoherent radar sensors, time series analysis, spectral estimation, radar using multiple frequency bands

4/1999–5/2001 Signal processing for array antennas, calibration, mutual coupling compensation, bearing estimation

11/1996–3/1999 Signal processing for a multi-functional automotive radar sensor, automatic sequence control, radar ranging, polarimetry, scattering at moving random rough surfaces, short time parameter estimation

Teaching

since 10/2018 Undergraduate course “Einführung in die Hochfrequenztechnik”
2018–2023 Graduate course “Electromagnetic Sensors and Measurement Systems Laboratory”
since 10/2013 Graduate course “Radar Signals and Systems”
since 10/2012 Undergraduate course “Wellenausbreitung und Übertragungstechnik (LB)”
since 4/2012 Undergraduate course “Grundlagen der Hochfrequenztechnik (LB)”
since 4/2009 Undergraduate course “Hochfrequenzschaltungen”
2009–2013 Graduate course “High-Frequency Circuit Design”
2004–2009 Graduate courses “Linear and Nonlinear Microwave Circuits I + II”
since 2003 Coauthor of the textbook “Detlefsen, Siart: Grundlagen der Hochfrequenztechnik (München, Oldenbourg, 4th ed. 2012)”

5/1998–7/2004 Advisor for lectures and events for students of teaching degree at vocational schools (supervising tutor in “Grundlagen der Hochfrequenztechnik (LB)” and “Hochfrequenztechnik (LB)”, compilation of the lecture documents and supplementary documents, elaboration of the written exams)

Examiner, mostly within the First State Examination in the study program “Lehramt an Beruflichen Schulen” with emphasis on electrical engineering

11/1996–7/2004 Supervising tutor in the lab courses “Rundfunk- und Fernsehtechnik” and “Hochfrequenztechnik/Mikrowellentechnik”

Administrative tasks

since 10/2009 Staff and financial administration of the Chair of High-Frequency Engineering of the Technical University of Munich

2004–2013 Assistant Registrar of the examination board within the Department of Electrical and Computer Engineering of the Technical University of Munich

2006–2007 Chairman of the EMC Zürich 2007 local organizing committee

2004–2009 Scientific coordinator of the international study program “Master of Science in Microwave Engineering”

2004 TPC member of the European Conference on Wireless Technologies 2004

2002–2003 Operational Officer of the European Conference on Wireless Technologies 2003

1999–2004 Organization and arrangement of the annual training seminar “Fortschritte in der Elektrotechnik und Informationstechnik” for vocational school teachers

Language proficiency

German mother tongue
English CEFR level B2 (independent user, vantage level)
French CEFR level A1 (basic user, breakthrough level)

Publications

- [1] J. F. Tiede, Ch. Chwala, U. Siart, and T. F. Eibert: “Frequency Dependent Variations of the Antenna Reflection Coefficient Due to Different Wetness Conditions on the Antenna Radome”. In: *Kleinheubacher Tagung*. Miltenberg, Germany, September 24–26, 2024.
- [2] J. Tiede, U. Siart, and T. F. Eibert: “Doubly-Periodic Unit Cell Modeling of the Frequency-Dependent Transmission and Reflection Behavior of Large Aperture Antenna Radomes Wetted by Water Drops”. In: *IEEE International Symposium on Antennas and Propagation*. Florence, Italy, July 14–19, 2024.
- [3] B. Möhring, U. Siart, S. Schweizer, and T. F. Eibert: “A Highly Flexible and Elastic Low-Cost Stencil-Printed Coplanar Waveguide on Rough Airbag Nylon 66 Textile”. In: *Proc. German Microwave Conference (GeMiC)*. Duisburg, Germany, March 11–13, 2024.
- [4] J. Tiede, C. Chwala, and U. Siart: “New Insights into Dynamics of Wet Antenna Attenuation Based on In-Situ Estimations Provided by the Dedicated Field Experiment ATTRA2”. In: *IEEE Geosci. Remote Sens. Lett.* 20 (2023). Art. no. 1002305, pp. 1–5. DOI: 10.1109/LGRS.2023.3320755.
- [5] J. Tiede, U. Siart, Ch. Chwala, and H. Kunstmann: “New Insights Into the Wet Antenna Attenuation Effect Based on Data from a Dedicated Field Experiment with CML Antennas”. In: *European Geoscience Union General Assembly (EGU)*. Vienna, Austria, April 23–28, 2023.
- [6] B. Möhring, U. Siart, S. Schweizer, and T. F. Eibert: “Transmission Line Based Frequency Modulated Continuous Wave Radar for Monitoring Airbag Deployment Processes”. In: *Proc. European Radar Conference (EuRAD)*. London, UK, April 5–7, 2022.
- [7] M. G. Ehrnsperger, M. Noll, S. Punzet, U. Siart, and T. F. Eibert: “Dynamic Eigenimage Based Background and Clutter Suppression for Ultra Short-Range Radar”. In: *Advances in Radio Science* 19 (December 17, 2021), pp. 71–77. DOI: 10.5194/ars-19-71-2021. URL: <https://ars.copernicus.org/articles/19/71/2021/> (visited on 12/17/2021).
- [8] B. Möhring, U. Siart, and T. F. Eibert: “Fast Chirp Frequency Modulated Continuous Wave Reflectometer for Monitoring Fast Varying Discontinuities on Transmission Lines”. In: *IEEE Trans. Instrum. Meas.* IM-70 (October 2021), pp. 1–11. DOI: 10.1109/TIM.2021.3122118..
- [9] M. G. Ehrnsperger, T. Brenner, H. L. Hoese, U. Siart, and T. F. Eibert: “Real-Time Gesture Detection Based on Machine Learning Classification of Continuous Wave Radar Signals”. In: *IEEE Sensors J.* 21.6 (March 2021), pp. 8310–8322.
- [10] J. Knapp, A. Paulus, J. Kornprobst, U. Siart, and T. F. Eibert: “Multifrequency Phase Retrieval for Antenna Measurements”. In: *IEEE Trans. Antennas Propag.* AP-69.1 (January 2021), pp. 488–501.
- [11] M. G. Ehrnsperger, M. Noll, U. Siart, and T. F. Eibert: “Background and Clutter Removal Techniques for Ultra Short Range Radar”. In: *Proc. European Radar Conference (EuRAD)*. Utrecht, The Netherlands, January 13–15, 2021, pp. 78–81.
- [12] C. Moroder, U. Siart, C. Chwala, and H. Kunstmann: “Microwave Instrument for Simultaneous Wet Antenna Attenuation and Precipitation Measurement”. In: *IEEE Trans. Instrum. Meas.* IM-69.8 (August 2020), pp. 5853–5861.
- [13] C. Moroder, U. Siart, C. Chwala, and H. Kunstmann: “Modeling of Wet Antenna Attenuation for Precipitation Estimation From Microwave Links”. In: *IEEE Geosci. Remote Sens. Lett.* GRSL-17.3 (March 2020), pp. 386–390.
- [14] M. G. Ehrnsperger, T. Brenner, U. Siart, and T. F. Eibert: “Real-Time Gesture Recognition with Shallow Convolutional Neural Networks Employing an Ultra Low Cost Radar System”. In: *German Microwave Conference (GeMiC)*. Cottbus, Germany, March 9–11, 2020.

- [15] M. Ehrnsperger, H. L. Hoese, U. Siart, and T. F. Eibert: "Performance Investigation of Machine Learning Algorithms for Simple Human Gesture Recognition employing an Ultra Low Cost Radar System". In: *Kleinheubacher Tagung*. Miltenberg, Germany, September 23–25, 2019.
- [16] B. Möhring, C. Moroder, U. Siart, and T. F. Eibert: "Transmission Line Based FMCW Radar for Localization of Airbag Surface Deformations". In: *Kleinheubacher Tagung*. Miltenberg, Germany, September 23–25, 2019.
- [17] C. Moroder, U. Siart, Ch. Chwala, and H. Kunstmann: "Antenna Monitoring to Enhance Precipitation Quantification by Radio Links". In: *Kleinheubacher Tagung*. Miltenberg, Germany, September 23–25, 2019.
- [18] M. G. Ehrnsperger, U. Siart, M. Moosbühler, E. Daporta, and T. Eibert: "Signal degradation through sediments on safety-critical radar sensors". In: *Advances in Radio Science* 17 (September 19, 2019), pp. 91–100. DOI: 10.5194/ars-17-91-2019. URL: <https://ars.copernicus.org/articles/17/91/2019/> (visited on 09/19/2019).
- [19] B. Möhring, C. Moroder, U. Siart, and T. F. Eibert: "DDS Based Wideband and Fast Chirp FMCW Radar for Tracing Discontinuities on Transmission Lines". In: *Photonics and Electromagnetics Research Symposium (PIERS)*. Rome, Italy, June 17–20, 2019.
- [20] B. Möhring, C. Moroder, U. Siart, and T. F. Eibert: "Broadband, Fast, and Linear Chirp Generation Based on DDS for FMCW Radar Applications". In: *Radar Conference*. Boston, Massachusetts, USA, April 22–26, 2019.
- [21] C. Moroder, U. Siart, Ch. Chwala, and H. Kunstmann: "Improving commercial microwave link rainfall estimation by in situ measurement of the wet antenna effect". In: *European Geoscience Union General Assembly (EGU)*. Vienna, Austria, April 7–12, 2019.
- [22] G. F. Hamberger, S. Späth, U. Siart, and T. F. Eibert: "A Mixed Circular/Linear Dual-Polarized Phased Array Concept for Automotive Radar – Planar Antenna Designs and System Evaluation at 78 GHz". In: *IEEE Trans. Antennas Propag.* AP-67.3 (March 2019), pp. 1562–1572.
- [23] G. F. Hamberger, Ch. Koenen, O. Neitz, R. Mauer Mayer, Ch. Eisner, U. Siart, and T. F. Eibert: "Setup and Characterization of a Volumetric W-Band Near-Field Antenna Measurement System". In: *IEEE Trans. Antennas Propag.* AP-66.10 (October 2018), pp. 5498–5510.
- [24] S. Trummer, G. F. Hamberger, R. Koerber, U. Siart, and T. F. Eibert: "Autonomous Driving Features based on 79 GHz Polarimetric Radar Data". In: *Proc. European Radar Conference (EuRAD)*. Madrid, Spain, September 26–28, 2018.
- [25] M. G. Ehrnsperger, U. Siart, and T. F. Eibert: "Signal Degradation Through Sediments on Safety Critical Radar Sensors". In: *Kleinheubacher Tagung*. Miltenberg, Germany, September 24–26, 2018.
- [26] G. F. Hamberger, U. Siart, and T. F. Eibert: "Modeling, Design, and Characterization of a 78.5 GHz Dual-Polarized Planar Antenna Array Consisting of Series-Parallel Fed Patch Antenna Sub-Arrays". In: *International Conference on Electromagnetics in Advanced Applications (ICEAA)*. Cartagena, Colombia, September 11–14, 2018.
- [27] D. Luber and U. Siart: "A Stochastic Model for the Generation of Correlated Sea Clutter". In: *International Radar Symposium (IRS)*. Bonn, Germany, June 20–22, 2018.
- [28] G. F. Hamberger, U. Siart, and T. F. Eibert: "A Broadband Low-Loss WR10 Waveguide to Microstrip Line Transition with T-Shaped Probe". In: *Progress In Electromagnetics Research Letters* 73 (January 2018), pp. 17–22.
- [29] C. Koenen, G. F. Hamberger, U. Siart, T. F. Eibert, H.-U. Nickel, G. D. Conway, and U. Stroth: "A Low-Reflectivity Vacuum Window for Rectangular Hollow Waveguides". In: *IEEE Trans. Microw. Theory Techn.* MTT-66.1 (January 2018), pp. 128–135.

- [30] G. F. Hamberger, U. Siart, and T. F. Eibert: "A Dual-Linearly Polarized Receive Antenna Array for Digital Beamforming in Automotive Use". In: *Asia Pacific Microwave Conference (APMC)*. Kuala Lumpur, Malaysia, November 13–16, 2017.
- [31] C. Koenen, U. Siart, and T. F. Eibert: "Millimeter-Wave Gaussian Beam Shaping and Steering Phased Array Antenna". In: *Proc. European Radar Conference (EuRAD)*. Nuremberg, Germany, October 11–13, 2017.
- [32] T. Mittermaier, U. Siart, and T. F. Eibert: "Recursive Cramér-Rao Bounds of Doppler-Based Localization in Short-Range Radar". In: *Proc. European Radar Conference (EuRAD)*. Nuremberg, Germany, October 11–13, 2017.
- [33] S. Trummer, G. F. Hamberger, R. Koerber, U. Siart, and T. F. Eibert: "Performance Analysis of 79 GHz Polarimetric Radar Sensors for Autonomous Driving". In: *Proc. European Radar Conference (EuRAD)*. Nuremberg, Germany, October 11–13, 2017.
- [34] C. Koenen, U. Siart, and T. F. Eibert: "A Low-Reflectivity Vacuum Window". In: *Kleinheubacher Tagung*. Miltenberg, Germany, September 25–27, 2017.
- [35] H. Azodi, U. Siart, and T. Eibert: "Sparse representation discretization errors in multi-sensor radar target motion estimation". In: *Advances in Radio Science* 15 (September 21, 2017), pp. 69–76. DOI: 10.5194/ars-15-69-2017. URL: <https://ars.copernicus.org/articles/15/69/2017/> (visited on 09/21/2017).
- [36] C. Moroder, U. Siart, Ch. Chwala, and H. Kunstmann: "Fundamental Study of Wet Antenna Attenuation". In: *15th International Conference on Environmental Science And Technology (CEST)*. Rhodes, Greece, August 31–September 2, 2017.
- [37] G. F. Hamberger, S. Trummer, U. Siart, and T. F. Eibert: "Circularly Polarized Antenna Array for Automotive Applications". In: *42nd International Conference on Infrared, Millimeter and Terahertz Waves (IRMMW-THz)*. Cancún, México, August 27–September 1, 2017.
- [38] C. Koenen, U. Siart, and T. Eibert: "Computation of Reflector Contours for Gaussian Beam Shaping Phased Array Antenna Elements". In: *IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting (APS/URSI)*. San Diego, California, July 9–14, 2017.
- [39] D. Bok, D. Galda, and U. Siart: "A Multistatic Passive Coherent Location System with Receiver Location Constraints". In: *International Radar Symposium (IRS)*. Prague, Czech Republic, June 28–30, 2017.
- [40] C. Koenen, U. Siart, T. F. Eibert, G. D. Conway, and U. Stroth: "A Broadband Millimeter-Wave Hollow Waveguide Coupling Structure Configured by a Wire-Eroded Metal Plug-In". In: *IEEE Microw. Wireless Compon. Lett.* 27.5 (May 2017), pp. 434–436.
- [41] C. Koenen, U. Siart, T. F. Eibert, and G. D. Conway: "A Self-Aligning Cylindrical Sliding Short Plunger for Millimeter-Wave Rectangular Waveguides and its Application in a Reflection-Type Phase Shifter". In: *IEEE Trans. Microw. Theory Techn.* MTT-65.2 (February 2017), pp. 449–458.
- [42] G. F. Hamberger, S. Trummer, U. Siart, and T. F. Eibert: "A Planar Dual-Polarized Microstrip 1-D-Beamforming Antenna Array for the 24 GHz Band". In: *IEEE Trans. Antennas Propag.* AP-65.1 (January 2017), pp. 142–149.
- [43] G. F. Hamberger, S. Trummer, U. Siart, and T. F. Eibert: "A Single Layer Dual Linearly Polarized Microstrip Patch Antenna Array for Automotive Applications in the 77 GHz Band". In: *IEEE International Symposium on Phased Array Systems and Technology (PAST)*. Waltham, MA, USA, October 18–21, 2016.
- [44] C. Koenen, U. Siart, T. Eibert, G. Conway, and U. Stroth: "Design of a Millimeter-Wave Phased Array Antenna for Gaussian Beam Shaping and Steering". In: *IEEE International Symposium on Phased Array Systems and Technology (PAST)*. Waltham, MA, USA, October 18–21, 2016.

- [45] S. Trummer, G. F. Hamberger, U. Siart, and T. F. Eibert: "A Polarimetric 76–79 GHz Radar-Frontend for Target Classification in Automotive Use". In: *Proc. European Radar Conference (EuRAD)*. London, UK, October 5–7, 2016.
- [46] T. Mittermaier, U. Siart, T. F. Eibert, and S. Bonerz: "Extended Kalman Doppler tracking and model determination for multi-sensor short-range radar". In: *Advances in Radio Science* 14 (September 28, 2016), pp. 39–46. DOI: 10.5194/ars-14-39-2016. URL: <http://ars.copernicus.org/articles/14/39/2016/> (visited on 09/28/2016).
- [47] H. Azodi, U. Siart, and T. F. Eibert: "Sparse Representation Discretization Errors in Multi-Sensor Radar Target Motion Estimation". In: *Kleinheubacher Tagung*. Miltenberg, Germany, September 26–28, 2016.
- [48] G. Hamberger, S. Trummer, U. Siart und T. Eibert: „Planares polarimetrisches Radarsystem für Automobilanwendungen“. In: *Kleinheubacher Tagung*. Miltenberg, Germany, 26.–28. September 2016.
- [49] C. Koenen, U. Siart, T. F. Eibert, G. D. Conway, and U. Stroth: "A Millimeter-Wave Phased Array Antenna for Small-Scale Plasma Turbulence Studies on ASDEX Upgrade Tokamak". In: *Kleinheubacher Tagung*. Miltenberg, Germany, September 26–28, 2016.
- [50] T. Mittermaier, U. Siart, and T. Eibert: "Target Tracking in Industrial Multi-Sensor Short-Range Radar Applications Using Doppler and Amplitude Information". In: *IEEE International Conference on Multi-sensor Fusion and Integration for Intelligent Systems (MFI)*. Baden-Baden, Germany, September 19–21, 2016.
- [51] T. Mittermaier, U. Siart, and T. Eibert: "Accuracy Analysis of Short-Range Doppler Shift Target Localization Using a Multi-Sensor Platform". In: *IEEE Radar Conference*. Philadelphia, PA, USA, May 2–6, 2016.
- [52] H. Azodi, C. Koenen, U. Siart, and T. F. Eibert: "Empirical Discretization Errors in Sparse Representations for Motion State Estimation with Multi-Sensor Radar Systems". In: *10th European Conference on Antennas and Propagation (EuCAP)*. Davos, Switzerland, April 10–15, 2016.
- [53] G. F. Hamberger, A. Drexler, S. Trummer, U. Siart, and T. F. Eibert: "A Planar Dual-Polarized Microstrip 1D-Beamforming Antenna Array for the 24 GHz ISM-Band". In: *10th European Conference on Antennas and Propagation (EuCAP)*. Davos, Switzerland, April 10–15, 2016.
- [54] C. Koenen, G. F. Hamberger, U. Siart, and T. F. Eibert: "A Volumetric Near-Field Scanner for Millimeter-Wave Antenna Measurements". In: *10th European Conference on Antennas and Propagation (EuCAP)*. Davos, Switzerland, April 10–15, 2016.
- [55] C. Koenen, U. Siart, T. F. Eibert, G. D. Conway, and U. Stroth: "A Configurable Coupling Structure for Broadband Millimeter-Wave Split-Block Networks". In: *IEEE Trans. Microw. Theory Techn.* MTT-63.12 (December 2015), pp. 3954–3961.
- [56] G. Hamberger, S. Trummer, U. Siart, and T. Eibert: "A Planar Dual-Polarized Microstrip Antenna Array in Series-Parallel Feed Configuration". In: *Loughborough Antennas and Propagation Conference*. Loughborough, UK, November 2–3, 2015.
- [57] G. Hamberger, S. Trummer, U. Siart und T. Eibert: „Untersuchung eines Antennenelementes zur Verwendung in einem planaren, zweifach linear polarisiertem Antennenarray“. In: *Kleinheubacher Tagung*. Miltenberg, Germany, 28.–30. September 2015.
- [58] T. Wächter, U. Siart, T. Eibert, and S. Bonerz: "Extended Kalman Doppler Tracking and Model Determination for Multi-Sensor Short-Range Radar". In: *Kleinheubacher Tagung*. Miltenberg, Germany, September 28–30, 2015.
- [59] T. Spreng, S. Yuan, V. Valenta, H. Schumacher, U. Siart, and V. Ziegler: "Wideband 120 GHz to 140 GHz MIMO Radar: System Design and Imaging Results". In: *Proc. European Radar Conference (EuRAD)*. Paris, France, September 9–11, 2015.

- [60] T. Wächter, U. Siart, and T. F. Eibert: “Weighted Phase Difference Short-Time Doppler Estimation and Fixed-Gain Tracking for Industrial Sensor Applications”. In: *Proc. European Radar Conference (EuRAD)*. Paris, France, September 9–11, 2015.
- [61] U. Faz, U. Siart, T. F. Eibert, and T. Hermann: “Electric Field Homogeneity Optimization by Dielectric Inserts for Improved Material Sensing in a Cavity Resonator”. In: *IEEE Trans. Instrum. Meas.* IM-64.8 (August 2015), pp. 2239–2246. DOI: 10.1109/TIM.2015.2393397.
- [62] U. Stroth, A. Bañón Navarro, A. Biancalani, C. Bottereau, F. Clairet, S. Coda, G.D. Conway, T. Eibert, A. Fasoli, T. Görler, Ö. Gürçan, P. Hennequin, T. Happel, A. Hetzenecker, M. Hirsch, F. Jenko, W. Kasperek, A. Krämer-Flecken, C. Lechte, A. Medvedeva, D. Molina, L. Porte, D. Prisiazhniuk, U. Siart, P. Simon, C. Koenen, L. Vermare, S. Wolf, and the ASDEX Upgrade team: “Experimental turbulence studies for gyro-kinetic code validation using advanced microwave diagnostics”. In: *Nuclear Fusion* 55.8 (August 2015). DOI: 10.1088/0029-5515/55/8/083027.
- [63] U. Faz, U. Siart, and T. Eibert: “A Cylindrical Cavity Resonator for Material Measurements with Coupled Resonant Modes for Sensing and Position Offset Compensation of the Dielectric Specimen”. In: *German Microwave Conference (GeMiC)*. Nürnberg, Germany, March 16–18, 2015, pp. 36–39. DOI: 10.1109/GEMIC.2015.7107746.
- [64] C. Koenen, U. Siart, T. Eibert, G. Conway, and U. Stroth: “Broadband Amplitude Tapering for a Linear W-Band Array Antenna for Gaussian Beam-Shaping”. In: *German Microwave Conference (GeMiC)*. Nürnberg, Germany, March 16–18, 2015, pp. 202–204. DOI: 10.1109/GEMIC.2015.7107788.
- [65] C. Koenen, U. Siart, T. Eibert, G. Conway, and U. Stroth: “Methods for Optimum Aperture Tapering in a Near-Field Focusing Linear W-Band Horn Array”. In: *Fachtagung des ITG-Fachausschusses 7.5, WFMN 2015*. Chemnitz, Germany, February 10–13, 2015.
- [66] H. Kunstmann, C. Chwala, F. Keis, U. Siart, J. Seltmann, and R. Gerigk: “Precipitation Quantification by Analysis of Microwave Link Data from Commercial Cellphone Providers”. In: *Fachtagung des ITG-Fachausschusses 7.5, WFMN 2015*. Chemnitz, Germany, February 10–13, 2015.
- [67] H. Azodi, U. Siart, and T.F. Eibert: “A Fast 3-D Deterministic Ray Tracing Coverage Simulator Including Creeping Rays Based On Geometry Voxelization Technique”. In: *IEEE Trans. Antennas Propag.* AP-63.1 (January 2015), pp. 210–220. DOI: 10.1109/TAP.2014.2365572.
- [68] T. Wächter, U. Siart, T. Eibert, and S. Bonerz: “Multi-sensor Doppler radar for machine tool collision detection”. In: *Advances in Radio Science* 12 (November 10, 2014), pp. 35–41. DOI: 10.5194/ars-12-35-2014. URL: <http://www.adv-radio-sci.net/12/35/2014/> (visited on 01/11/2015).
- [69] O. Wiedenmann, R. Ramakrishnan, P. Saal, E. Kılıç, U. Siart, T. Eibert, and W. Volk: “Local microwave heating of sand molds as a means to overcome design limitations in sand mold casting”. In: *Advances in Radio Science* 12 (November 10, 2014), pp. 21–28. DOI: 10.5194/ars-12-21-2014. URL: <http://www.adv-radio-sci.net/12/21/2014/> (visited on 01/11/2015).
- [70] U. Stroth, A. Bañón Navarro, A. Biancalani, C. Bottereau, F. Clairet, S. Coda, G.D. Conway, T. Eibert, A. Fasoli, T. Görler, Ö. Gürçan, P. Hennequin, T. Happel, A. Hetzenecker, M. Hirsch, F. Jenko, W. Kasperek, A. Krämer-Flecken, C. Lechte, A. Medvedeva, D. Molina, L. Porte, D. Prisiazhniuk, U. Siart, P. Simon, C. Koenen, L. Vermare, S. Wolf, and the ASDEX Upgrade team: “Experimental turbulence studies for gyro-kinetic code validation using advanced microwave diagnostics”. In: *25th Fusion Energy Conference (FEC)*. International Atomic Energy Agency (IAEA). St. Petersburg, Russia, October 13–18, 2014.
- [71] H. Azodi, U. Siart, and T. F. Eibert: “A Study of Compressed Sensing Based Collision Detection From Multi-Sensor CW Radar Data”. In: *Proc. European Radar Conference (EuRAD)*. Rome, Italy, October 8–10, 2014, pp. 269–272.

- [72] C. Koenen, U. Siart, T. Eibert, G. Conway, and U. Stroh: "Broadband Gaussian Beam-Shaping in a 32-Element Linear W-Band Horn Array". In: *Kleinheubacher Tagung*. Miltenberg, Germany, September 29–October 1, 2014.
- [73] H. Azodi, U. Siart, and T. Eibert: "Compressed Sensing for Near Range MIMO Radar in Multipath Environment". In: *IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting (APS/URSI)*. Memphis, TN, USA, July 6–11, 2014.
- [74] K. Wang, A. Paulus, T. J. Wächter, U. Siart, and T. F. Eibert: "Compact CW Radar Transceiver Antennas with Novel Decoupling Technique Based on Neutralization". In: *8th European Conference on Antennas and Propagation (EuCAP)*. The Hague, The Netherlands, April 6–11, 2014.
- [75] H. Azodi, T. J. Wächter, U. Siart, T. F. Eibert, and S. Bonerz: "Compressed Sensing Approach for Fast Collision Warning Radar". In: *German Microwave Conference (GeMiC)*. Aachen, Germany, March 10–12, 2014.
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