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Peer-Reviewed Journal Papers

- [J55] Gerald Artner, Philipp Gentner, Johann Nicolics and Christoph Mecklenbräuer: Carbon Fiber Reinforced Polymer With Shredded Fibers – Quasi-Isotropic Material Properties and Antenna Performance, *International Journal of Antennas and Propagation*, Special Issue “Metamaterials, Metasurfaces, and Artificial Dielectrics: Theory and Applications to the Next-Generation Telecommunication Platforms”, 2017. Article ID 6152651, 11 pages, doi:10.1155/2017/6152651
- [J54] Aniruddha Chandra, Pavel Kukolev, Aleš Prokeš, Tomávs Mikulášek and Christoph F. Mecklenbräuer: UWB Measurements for Spatial Variability and Ranging: Parked Car in Underground Garage, *IEEE Antennas and Wireless Propagation Letters*, Vol. 16, No. 99, pp. 1859–1862. Nov. 2016. doi:10.1109/LAWP.2016.2628390
- [J53] Gerald Artner, Robert Langwieser, Christoph F. Mecklenbräuer: Concealed CFRP Vehicle Chassis Antenna Cavity, *IEEE Antennas and Wireless Propagation Letters*, Vol. 16, pp. 1415–1418, 2017. doi:10.1109/LAWP.2016.2637560
- [J52] Christian Backfrieder, Gerald Ostermayer, Christoph F. Mecklenbräuer: Increased Traffic Flow through Node-Based Bottleneck Prediction and V2X Communication, to be published in *IEEE Transactions on Intelligent Transportation Systems*, Vol. PP, No. 99, 15 pages, 2016. doi:10.1109/TITS.2016.2573292
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- [J48] Nikola Gvozdenovic, Ralph Prestros, Christoph F. Mecklenbräuker: Far-field testing method of spurious emission produced by HF RFID, *International Journal of Antennas and Propagation*, Special Issue “Near-Field Propagation and Its Applications for Wireless Power and Signal Transfer”, 2016. Article ID 4715898, 6 pages, doi:10.1155/2016/4715898
- [J47] Gregor Lasser, Lukas W. Mayer, Zoya Popovic, Christoph Mecklenbräuker: Low-Profile Switched-Beam Antenna backed by an Artificial Magnetic Conductor for Efficient Close-to-Metal Operation, *IEEE Transactions on Antennas and Propagation*, Vol. 64, No. 4, pp. 1307–1316, Apr. 2016. doi:10.1109/TAP.2016.2526044
- [J46] Arrate Alonso, Christoph F. Mecklenbräuker: Dependability of Decentralized Congestion Control for varying VANET density, *IEEE Trans. Vehicular Technology*, Volume 65, No. 11, pp. 9153–9167, Nov. 2016. doi:10.1109/TVT.2016.2519598
- [J45] Peter Gerstoft, Aggeliki Xenaki, Christoph F. Mecklenbräuker, Multiple and single snapshot compressive beamforming, *J Acoust. Soc. Am.*, *J. Acoust. Soc. Am.* Vol. 138, No.4, pp. 2003–2014, Oct. 2015. doi:10.1121/1.4929941
- [J44] Taimoor Abbas, Jörg Nuckelt, Thomas Kürner, Thomas Zemen, Christoph F. Mecklenbräuker, Fredrik Tufvesson: Simulation and Measurement Based Vehicle-to-Vehicle Channel Characterization: Accuracy and Constraint Analysis, *IEEE Trans. Antennas and Propagation*, Vol. 63. No. 7, pp. 3208–3218, Jul. 2015. doi:10.1109/TAP.2015.2428280
- [J43] Aniruddha Chandra, Jiri, Blumenstein, Tomas Mikusalek, Roman Marsalek, Aleš Prokeš Thomas Zemen, Christoph F. Mecklenbräuker, Serial subtractive deconvolution algorithms for time-domain ultra wide band in-vehicle channel sounding IET Intelligent Transportation Systems, Vol. 9, No. 9, pp. 870-880, Nov. 2015. doi:10.1049/iet-its.2014.0287
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Submitted Journal Papers

Book Chapters

- [B7] Aniruddha Chandra, Ales Prokes, Jiri Blumenstein, Pavel Kukolev, Joseph Vychodil, Tomas Mikusalek, Thomas Zemen, Christoph F. Mecklenbräuker: “Intra Vehicular Wireless Channel Measurements,” in: “European Project Space on Information and Communication Systems”, C. Angot, O. Camp (Hrg.); SCITEPRESS - Science and Technology Publications, Lda., Angers, France, 2015, ISBN: 978-989-758-155-7, S. 3 - 27.
- [B6] Laura Bernadó, Nicolai Czink, Thomas Zemen, Alexander Paier, Fredrik Tufvesson, Christoph F. Mecklenbräuker, Andreas F. Molisch, *Vehicular Channels*, Chapter 6 in *LTE-Advanced and Next Generation Wireless Networks: Channel Modelling and Propagation*, Guillaume de la Roche, Andrés Alayón, and Ben Allen (Eds.), John Wiley and Sons, Chichester, United Kingdom, pp. 153–185, Print ISBN: 978-1-119-97670-7, Web ISBN: 1-119976-70-7, eISBN: 978-1-118-41101-8, Pages in Print Edition: 566, Nov. 28, 2012. DOI: 10.1002/9781118410998.ch6
- [B5] Christoph Mecklenbräuker (Chapter Editor), Laura Bernadó, Oliver Klemp, Andreas Kwoczek, Alexander Paier, Moritz Schack, Katrin Sjöberg, Erik G. Ström, Fredrik Tufvesson, Elisabeth Uhlemann, and Thomas Zemen: *Vehicle-to-Vehicle communications*, Chapter 14 in *Pervasive Mobile and Ambient Wireless Communications, COST Action 2100*, Roberto Verdone, Alberto Zanella (Eds.), pp. 577–608, Springer Verlag London Limited, ISBN: 978-1-4471-2314-9, to be published 2012.
- [B4] Martin Wolkerstorfer, Tomas Nordström, Bujar Krasniqi, Martin Wrulich, Christoph F. Mecklenbräuker: *OFDM/OFDMA Subcarrier Allocation*, Chapter 6 in *Cross Layer Designs in WLAN Systems*, Nizar Zorba, Charalambos Skianis and Christos Verikoukis (Eds.), Series on Emerging Communication and Service Technologies, Vol. 1 and 2, troubadour publishing ltd, ISBN: 978-1-8487-6227-5, Dec. 2011.
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- [B2] Ian Oppermann, Matti Hämäläinen, Jari Iinatti, Alberto Rabbachin, Ben Allen, Seyed A. Ghorashi, Mohammad Ghavami, Olaf Albert and Christoph F. Mecklenbräuker: *Signal Processing*, Ch. 3 in *UWB Communication Systems — A Comprehensive Overview*, EURASIP Book Series on Signal Processing and Communications, Vol. 5, M.G. Di Benedetto,

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Doctoral Thesis

- [D] Christoph F. Mecklenbräuer: *Parameterschätzung und Hypothesentests für akustische Wellenfelder unter Berücksichtigung der physikalischen Ausbreitungsbedingungen*, Shaker Verlag GmbH, Aachen, Germany, 1998.

Peer-Reviewed Conference Contributions

- [C186] Gerald Artner, Robert Langwieser, Christoph F. Mecklenbräuer: Vehicular Roof Antenna Cavity for Coverage at Low Elevation Angles, in Proc. IEEE AP-S Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting, San Diego, California, USA; Jul. 9–14, 2017. ISBN: 978-1-5386-3284-0.
- [C185] Thomas Blazek, Christoph F. Mecklenbräuer, Golsa Ghiaasi-Hafezi, Dieter Smely, Mehdi Ashury: Vehicular Channel Models: A System Level Performance Analysis of Tapped Delay Line Models, in Proc. 2017 15th International Conference on ITS Telecommunications (ITST) (ITST 2017), Warsaw, Poland; May 29–31, 2017; ISBN: 978-1-5090-5274-5; 8 pages.
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- [C183] Erich Zöchmann, Robert Langwieser, Sebastian Caban, Martin Lerch, Stefan Pratschner, Roland Nissel, Christoph F. Mecklenbräuer, Markus Rupp: A Millimeter Wave Testbed for Repeatable High Velocity Measurements, in Proc. European Wireless 2017,

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- [C178] David Löschenbrand, Robert Langwieser, Christoph F. Mecklenbräuker: Fast Antenna Characterization via a Sparse Spherical Multipole Expansion, in Proc. CoSeRa 2016, Aachen, Germany, September 2016.
- [C177] Peter Gerstoft, Christoph F. Mecklenbräuker: Wideband Sparse Bayesian Learning for DOA Estimation from Multiple Snapshots, in Proc. 2016 IEEE 9th Sensor Array and Multichannel Signal Processing Workshop (SAM), Rio de Janeiro, Brazil, pp. 1–5, Jul. 2016. doi:10.1109/SAM.2016.7569745
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- [C174] Gregor Lasser, Zoya Popovic, Christoph F. Mecklenbräuker: Dual-Band, Low-Frequency Artificial Magnetic Conductor using Lumped Components, 9th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics — Metamaterials 2015, Oxford, United Kingdom, 7-12 September 2015.
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Presentations and Invited Talks

- [T44] Christoph Mecklenbräuker, Peter Gerstoft, Angeliki Xenaki: Multi Snapshot Sparse Bayesian Learning for DOA Estimation, Guest Lecture, FAU Erlangen–Nürnberg, Germany, June 12, 2017 (**invited**).
- [T43] Christoph Mecklenbräuker and Peter Gerstoft: Sparse Bayesian Learning for Wavefields from Sensor Array Data, in Proc. Information Theory and Applications Workshop (ITA 2016), San Diego (CA), USA, Feb. 2016 (**invited**).
- [T42] Christoph Mecklenbräuker and Peter Gerstoft: Sequential Bayesian Reconstruction of Sparse Source from Sensor Array Data in Proc. Information Theory and Applications Workshop (ITA 2014), San Diego (CA), USA, Feb. 2014 (**invited**).

- [T41] Peter Gerstoft and Christoph F. Mecklenbräuer: Bayesian sequential sparse sampling, 21st International Congress on Acoustics (ICA 2013), Montreal, Canada, June 2–7, 2013.
- [T40] Martin Böck, Andreas Kugi, Christoph F. Mecklenbräuer: Maximierung der Dienstgüte in Drahtlosnetzen mittels Methoden der dynamischen Optimierung, Workshop GMA-Fachausschuss 1.40 “Theoretische Verfahren der Regelungstechnik”, Salzburg, Austria, Sep. 18–21, 2011.
- [T39] Christoph F. Mecklenbräuer, Compressive Sensing and Bayesian Sparse Wideband Source Reconstruction of Japanese 2011 Earthquake, Scripps Institute of Oceanography, University of California San Diego (UCSD), Aug. 19, 2011.
- [T38] Christoph F. Mecklenbräuer, Bujar Krasniqi: Power Efficiency of Partial Frequency Reuse for Cellular Networks, University of Southern California (USC), Los Angeles, Aug. 17, 2011.
- [T37] Christoph F. Mecklenbräuer, Florian Xavier, Gerald Matz, Peter Gerstoft: Distributed Wave-Field Parameter Estimation Using a Particle Filter, ETH Zurich, Jun. 17, 2011.
- [T36] Christoph F. Mecklenbräuer, Florian Xavier, Gerald Matz, Peter Gerstoft: Distributed Wave-Field Parameter Estimation Using a Particle Filter, TU Darmstadt, Jun. 8, 2011.
- [T35] Christoph F. Mecklenbräuer: Proofs for the Maximum Entropy Property of the Normal Distribution, in Proc. Joint Workshop on Coding and Communications (JWCC 2010), Santo Stefano Belbo, Oct. 18–19, 2010.
- [T34] Christoph F. Mecklenbräuer, Arrate Alonso, Alexander Paier, Thomas Zemen, Nicolai Czink, Fredrik Tufvesson: MIMO Capacity Evaluation of Measured Ricean Vehicle-to-Vehicle Radio Channels at 5.2 GHz, ETH Zurich, Jun. 11, 2010.
- [T33] Christoph F. Mecklenbräuer, Arrate Alonso, Alexander Paier, Thomas Zemen, Nicolai Czink, Fredrik Tufvesson: MIMO Capacity Evaluation of Measured Ricean Vehicle-to-Vehicle Radio Channels at 5.2 GHz, Chalmers University of Technology, Göteborg, Sweden, Apr. 28, 2010.
- [T32] Christoph F. Mecklenbräuer, Alexander Paier, Pavle Belanovic, Samaneh Shooshtary, Nuria Martí Boix, Mahdi Abbasi, Manuel Zaera, Thomas Zemen: Wireless Access for Vehicular Environments (IEEE 802.11p), ftw. member tutorial *Traffic Telematics*, Vienna, Nov. 5, 2008.

- [T31] Christoph F. Mecklenbräuker, Alexander Paier, Thomas Zemen, Gerald Matz, Andreas F. Molisch: On the Temporal Evolution of Signal Subspaces in Vehicular MIMO Channels in the 5 GHz Band, in Proc. Joint Workshop on Coding and Communications (JWCC 2008), St. Helena (CA), USA, Oct. 26–28, 2008 (invited).
- [T30] Christoph F. Mecklenbräuker, Alexander Paier, Johan Karedal, Nicolai Czink, Gerald Matz, Helmut Hofstetter, Charlotte Dumard, Thomas Zemen, Fredrik Tufvesson, Andreas F. Molisch: “Analysis of time-variant channel measurements with the Lund channel sounder,” presented at Norges Teknisk-Naturvitenskapelige Universitet (NTNU), Trondheim, Norway, Jun. 9, 2008.
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