Christoph F. Mecklenbräuker
Institute of Telecommunications
Technische Universität Wien
Gusshausstr. 25 / 389
1040 Vienna, Austria

January 27, 2020

Peer-Reviewed Journal Papers

[J74] Gerald Artner, Christoph F. Mecklenbräuker: Competence-Oriented Teaching of Antennas, Propagation, and Wireless Communications, IEEE Antennas and Propagation Magazine, to be published 2020.

[J73] Zoya Popovic, Gerald Artner, Gregor Lasser, Christoph F. Mecklenbräuker, EM-Wave Fun with Simple Take-Home Experiments, IEEE Antennas and Propagation Magazine, to be published 2020.

[J72] Christoph F. Mecklenbräuker, Peter Gerstoft, Erich Zöchmann, Herbert Groll: Robust estimation of DOA from array data at low SNR, Elsevier Signal Processing, vol. 166, pp. 1–9, Jan. 2020. doi:10.1016/j.sigpro.2019.107262

[J71] Jiří Milos, Jiří Blumenstein, Aleš Prokeš, Tomáš Mikulášek, Christoph F. Mecklenbräuker: Improved RMS Delay Spread Estimation for mmWave Channels Using Savitzky-Golay Filters, Electronics, Vol. 8, No. 12, 2019. doi:10.3390/electronics8121530

[J70] Thomas Blazek, Golsa Ghiaasi, Christian Backfrieder, Gerald Ostermayer, Christoph F. Mecklenbräuker: Performance Modeling and Analysis for Vehicle-to-Anything Connectivity in Representative High-Interference Channels, IET Microwaves, Antennas and Propagation, ISSN 1751-8644, 2019.

[J69] Taulant Berisha, Christoph F. Mecklenbräuker: Operational Service Quality Assessment on-board Railway Vehicles, IEEE Access, vol. 7, pp. 89637–89648, 2019, doi:10.1109/ACCESS.2019.2927122

[J68] Aniruddha Chandra, Aniq Ur Rahman, Ushasi Ghosh, José Antonio Garcia Naya, Aleš Prokeš, Jiří Blumenstein, Christoph F. Mecklenbräuker: 60-GHz Millimeter-Wave Propagation inside Bus: Measurement, Modelling, Simulation and Performance Analysis, IEEE Access, vol. 7, pp. 97815–97826, 2019, doi:10.1109/ACCESS.2019.2924729

[J67] Erich Zöchmann, Sebastian Caban, Christoph F. Mecklenbräuker, Stefan Pratschner, Martin Lerch, Stefan Schwarz, Markus Rupp: Better

than Rician: modelling millimetre wave channels as two-wave with diffuse power, EURASIP Journal on Wireless Communications and Networking, 2019 (2019), 21; pp. 1–17. doi:10.1186/s13638-018-1336-6

[J66] Peter Gerstoft,Santosh Nannuru, Christoph F. Mecklenbräuker, Geert Leus: DOA Estimation in Heteroscedastic Noise, Elsevier Signal Processing, vol. 161, pp. 63–73, 2019. doi:10.1016/j.sigpro.2019.03.014

[J65] Santosh Nannuru, Kay L. Gemba, Peter Gerstoft, William S. Hodgkiss, Christoph F. Mecklenbräuker: Sparse Bayesian learning with multiple dictionaries, Elsevier Signal Processing, Vol. 159, pp. 159–170, June 2019, doi:10.1016/j.sigpro.2019.02.003

[J64] Erich Zöchmann, Markus Hofer, Martin Lerch, Stefan Pratschner, Laura Bernado, Jiří Blumenstein, Sebastian Caban, Seun Sangodoyin, Herbert Groll, Thomas Zemen, Aleš Prokeš, Markus Rupp, Andreas F. Molisch, Christoph F. Mecklenbräuker: Position-Specific Statistics of 60 GHz Vehicular Channels during Overtaking, IEEE Access, Vol. 7, pp. 14216–14232, to be published, 2019. doi:10.1109/ACCESS.2019.2893136

[J63] Martin Haardt, Christoph Mecklenbräuker, Peter Willett: Highlights from the Sensor Array and Multichannel Technical Committee, Signal Processing Magazine, Sep. 2018.

[J62] Thomas Blazek and Christoph Mecklenbräuker: Measurement-Based Burst-Error Performance Modeling for Cooperative Intelligent Transport Systems, IEEE Trans. Intelligent Transport Systems, Vol. 20, No. 1, pp. 162–171, 2019. doi:10.1109/TITS.2018.2803266

[J61] Peter Gerstoft, Christoph F. Mecklenbräuker, Woojae Seong, Michael Bianco: Introduction to compressive sensing in acoustics, Editorial, Journal of the Acoustical Society of America (JASA), Vol. 143, No. 6, pp. 3731–3736, June 2018. doi:10.1121/1.5043089

[J60] Golsa Ghiaasi, Thomas Blazek, Mehdi Ashury, Rute Ramalho Santos and Christoph F. Mecklenbräuker: Real-Time Emulation of Nonstationary Channels in Safety-relevant Vehicular Scenarios, Wireless Communications and Mobile Computing, special issue Advances in V2X Communication and Networks, Volume 2018, Article ID 2423837, 11 pages, Hindawi, May 2018. doi:10.1155/2018/2423837

[J59] Gerald Artner, Erich Zöchmann, Stefan Pratschner, Martin Lerch, Markus Rupp, Christoph Mecklenbräuker: Angle-dependent reflectivity of twill-weave carbon fibre reinforced polymer for millimetre waves, Electronics Letters, vol. 54, no. 6, pp. 359–361, 2018. doi: 10.1049/el.2017.3010

[J58] Shrief Rizkalla, Christoph F. Mecklenbräuker, Ralph Prestros: Metallic Inductive Coupling Frame-Based HF RFID Cards, IET Microwaves, Antennas and Propagation, Vol. 12, No. 5, pp. 692–698, 2018. doi:10.1049/iet-map.2017.0573, Print ISSN 1751-8725, Online ISSN 1751-8733.

[J57] Shrief Rizkalla, Ralph Prestros, Christoph F. Mecklenbräuker: "Design and Optimization of Low Cost Booster-Based HF RFID Cards, IEEE Journal of Radio Frequency Identification, Vol. 1, No. 2, pp. 185–194, Jun. 2017, Available online: Dec. 30, 2017, doi: 10.1109/JRFID.2017.276948, Print ISSN 2469-7281, Online ISSN 2469-7281.

[J56] Manuel Lindorfer, Christoph F. Mecklenbräuker, Gerald Ostermayer: Modeling the Imperfect Driver: Incorporating Human Factors in a Microscopic Traffic Model, IEEE Trans. Intelligent Transportation Systems, Vol. 99, No. PP, pp. 1–15, accepted Oct. 19, 2017, to be published, doi:10.1109/TITS.2017.2765694 Date of Publication: 21 November 2017

[J55] Gerald Artner, Philipp Gentner, Johann Nicolics and Christoph Mecklenbräuker: 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. Mecklenbräuker: 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. Mecklenbräuker: 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. Mecklenbräuker: Increased Traffic Flow through Node-Based Bottleneck Prediction and V2X Communication, to be published in IEEE Transactions on Intelligent Transportation Systems, Vol. 18, No, 2, 349–363, Feb. 2017. doi:10.1109/TITS.2016.2573292

[J51] Christoph Mecklenbräuker, Peter Gerstoft, Erich Zöchmann: c–LASSO and its Dual for Sparse Signal Estimation from Array

Data, Elsevier Signal Processing, Vol. 130, pp. 204–216, Jan. 2017. doi:10.1016/j.sigpro.2016.06.029

[J50] Peter Gerstoft, Christoph Mecklenbräuker, Aggeliki Xenaki, Santosh Nannuru: Multisnapshot Sparse Bayesian Learning for DOA, IEEE Signal Processing Letters, Vol. 23, No. 10, pp. 1469–1473, Oct. 2016. doi:10.1109/LSP.2016.2598550

[J49] Jiří Blumenstein, Aleš Prokeš, Aniruddha Chandra, Tomáš Mikulášek, Roman Marsalek, Thomas Zemen, Christoph Mecklenbräuker: In-Vehicle Channel Measurement, Characterization and Spatial Consistency Comparison of 3–11 GHz and 55–65 GHz Frequency Bands, IEEE Transactions on Vehicular Technology, Vol. 66, No. 5, pp. 3526–3537, May 2017. doi:10.1109/TVT.2016.2600101

[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, Jiří 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

[J42] Jiří Blumenstein, Aleš Prokeš, Tomáš Mikulášek, Roman Marsalek, Thomas Zemen, Christoph Mecklenbräuker, Measurements of Ultra Wide Band In-vehicle channel - statistical description and TOA positioning feasibility study. EURASIP Journal on Wireless Communications and Networking, 2015:104, 9 pages, 2015. doi:10.1186/s13638-015-0332-3

[J41] Pavel Kukolev, Aniruddha Chandra, Tomas Mikusalek, Aleš Prokeš, Thomas Zemen, Christoph F. Mecklenbräuker, In-vehicle Channel Sounding in the 5.8 GHz Band, EURASIP Journal of Wireless Communication and Networking. pp. 1-12, 2015:57. doi:10.1186/s13638-015-0273-x

[J40] Laura Bernadó, Thomas Zemen, Fredrik Tufvesson, Andreas F. Molisch, Christoph F. Mecklenbräuker: Time– and Frequency–Varying K-Factor of Non-Stationary Vehicular Channels for Safety Relevant Scenarios, Transactions on Intelligent Transportation Systems, Vol. 16, No. 2, pp. 1007–1017, Apr. 2015. doi:10.1109/TITS.2014.2349364

[J39] Jiří Blumenstein, Roman Maršálek, Zbynek Fedra, Aleš Prokeš, Christoph F. Mecklenbräuker: Channel estimation method for OFDM in low SNR based on two-dimensional spreading, Wireless Personal Communications, Vol. 78, No. 1, pp. 715–728, Sep. 2014. doi:10.1007/s11277-014-1779-y.

[J38] Taimoor Abbas, Laura Bernadó, Andreas Thiel, Christoph F. Mecklenbräuker, and Fredrik Tufvesson: Radio Channel Properties for Vehicular Communication: Merging Lanes Versus Urban Intersections, IEEE Vehicular Technology Magazine, Vol. 8, No. 4, pp. 27–34, Dec. 2013. doi:10.1109/MVT.2013.2281676.

[J37] Veronika Shivaldova, Andreas Winkelbauer, Christoph F. Mecklenbräuker: Vehicular Link Performance: From Real-World Experiments to Reliability Models and Performance Analysis, IEEE Vehicular Technology Magazine, Vol. 8, No. 4, pp. 35–44, Dec. 2013. doi:10.1109/MVT.2013.2283133

[J36] Christoph F. Mecklenbräuker, Peter Gerstoft, Ashkan Panahi, Mats Viberg: Sequential Bayesian Sparse Source Reconstruction using Array Data, IEEE Transactions on Signal Processing, Vol. 61, No. 24, pp. 6344–6354, Dec. 15, , 2013. doi:10.1109/TSP.2013.2282919

[J35] Philipp K. Gentner, Robert Langwieser, Arpad L. Scholtz, Günter Hofer, Christoph F. Mecklenbräuker: A UHF/UWB hybrid silicon RFID tag with On–Chip Antennas, EURASIP Journal on Embedded Systems, Special Issue on RFID and near field communications in embedded systems, 2013:12, Aug. 16, 2013. doi:10.1186/1687-3963-2013-12

[J34] Laura Bernadó, Thomas Zemen, Fredrik Tufvesson, Andreas F. Molisch, Christoph F. Mecklenbräuker, Delay and Doppler Spreads of Non-Stationary Vehicular Channels for Safety Relevant Scenarios, IEEE Transactions on Vehicular Technology, Vol. 63, No. 1, pp. 82–93, Jan. 2014, doi:10.1109/TVT.2013.2271956

[J33] Florian Xaver, Peter Gerstoft, Geral Matz, Christoph F. Mecklenbräuker: Analytic Sequential Weiss-Weinstein Bounds, IEEE Transactions on Signal Processing, Vol. 61, No. 20, pp. 5049-5062, Oct. 2013. doi:10.1109/TSP.2013.2273886

[J32] Gregor Lasser, Robert Langwieser, Christoph F. Mecklenbräuker: Automatic Leaking Carrier Canceller Adjustment Techniques, EURASIP Journal on Embedded Systems, 2013:8, Special Issue on RFID and near field communications in embedded systems, May 2013. doi: 10.1186/1687-3963-2013-8.

[J31] Peter Gerstoft, Ravishankar Menon, William Hodgkiss, and Christoph Mecklenbräuker: Eigenvalues of the sample covariance matrix for a towed array, Journal of the Acoustical Society of America (JASA), Vol. 132, No. 4, pp. 2388–2396, Oct. 2012, doi:10.1121/1.4746024.

[J30] Gordhan Das Menghwar, Akhtar Ali Jalbani, Mukhtiar Memon, Mansoor Hyder, and Christoph F. Mecklenbräuker: Cooperative Space-Time Codes with Network Coding, EURASIP Journal on Wireless Communications and Networking (EURASIP JWCN), 2012:205, Jul. 2012, doi:10.1186/1687-1499-2012-205.

[J29] Philipp K. Gentner, Geoff Hilton, Mark A. Beach, Christoph F. Mecklenbräuker: Characterisation of UWB Antenna Arrays with Spacings Following a Geometric Progression, IET Communications, Vol. 6, No. 10, pp. 1179–1186, Jul. 2012, doi:10.1049/iet-com.2010.1054.

[J28] Huajian Yao, Peter Gerstoft, Peter M. Shearer, Christoph F. Mecklenbräuker: Compressive sensing of the Tohoku-Oki Mw9.0 Earthquake: Frequency-dependent Rupture Modes, Geophysical Research Letters, Vol. 38, L20310, doi:10.1029/2011GL049223, 28 Oct. 2011.

[J27] Florian Xaver, Gerald Matz, Peter Gerstoft and Christoph Mecklenbräuker: Localization of Acoustic Sources using a Decentralized Particle Filter, EURASIP Journal on Wireless Communications and Networking, Special Issue on Localization in Mobile Wireless and Sensor Networks, 2011. doi:10.1186/1687-1499-2011-94.

[J26] Christoph F. Mecklenbräuker, Andreas F. Molisch, Johan Karedal, Fredrik Tufvesson, Alexander Paier, Laura Bernadó, Thomas Zemen, Oliver Klemp, Nicolai Czink: *Vehicular channel characterization and its implications for wireless system design and performance*, Proceedings of the IEEE, Special Issue on Vehicular Communications, Vol. 99, No. 7, Jul. 2011 (**invited**). doi:10.1109/JPROC.2010.2101990,

[J25] Gordhan Das Menghwar, Christoph F. Mecklenbräuker: *Block-Markov Encoding with Network Coding for Cooperative Communications*, Computer Communications, ISSN: 0140-3664, Elsevier, Vol. 33, No. 17, pp. 2021–2030, Nov. 15, 2010. doi:10.1016/j.comcom.2010.07.024.

[J24] Pei-Jung Chung, Mats Viberg, Christoph F. Mecklenbräuker: *Broadband ML Estimation Under Model Order Uncertainty*, Signal Processing, Vol. 90, No. 5, pp. 1350–1356, ISSN: 0165-1684, Elsevier, May 2010.

[J23] Pavle Belanovic, Danilo Valerio, Alexander Paier, Thomas Zemen, Fabio Ricciato, Christoph F. Mecklenbräuker: *On Wireless Links for Vehicle-to-Infrastructure Communications*, IEEE Transactions on Vehicular Technology, Vol. 59, No.1, pp. 269–282, Jan. 2010. doi:10.1109/TVT.2009.2029119.

[J22] Giulio Coluccia, Erwin Riegler, Christoph F. Mecklenbräuker, Giorgio Taricco: *An optimum MIMO-OFDM iterative detector with pilot-aided channel state information*, IEEE Journal on Selected Topics in Signal Processing, Vol. 3, No. 6, pp. 1053–1065, Dec. 2009. doi:10.1109/JSTSP.2009.2037570.

[J21] Andreas F. Molisch, Fredrik Tufvesson, Johan Karedal, and Christoph F. Mecklenbräuker: A Survey on Vehicle-to-Vehicle Propagation Channels, IEEE Wireless Communications Magazine, special issue on "On-the-Road" communications, Vol. 16, No. 6, pp. 12–22, Dec. 2009.

[J20] Johan Karedal, Fredrik Tufvesson, Nicolai Czink, Alexander Paier, Charlotte Dumard, Thomas Zemen, Christoph F. Mecklenbräuker, Andreas F. Molisch: *A Geometry-Based Stochastic MIMO Model for Vehicle-to-Vehicle Communications*, IEEE Transactions for Wireless Communications, Vol. 8, No. 7, pp. 3646–3657, Jul. 2009. doi:10.1109/TWC.2009.080753.

[J19] Alexander Paier, Johan Karedal, Nicolai Czink, Charlotte Dumard, Thomas Zemen, Fredrik Tufvesson, Andreas F. Molisch, Christoph F. Mecklenbräuker: *Characterization of vehicle-to-vehicle radio channels from measurements at 5.2 GHz*, Wireless Personal Communications, ISSN 0929-6212 (Print), ISSN 1572-834X (Online), Vol. 50, pp. 19–32, Springer Netherlands, Jul. 2009 (published online 26 Jun. 2008). doi:10.1007/s11277-008-9546-6, published online 26 June 2008.

[J18] Zolfa Zeinalpour-Yazdi, Masoumeh Nasiri-Kenari, Behnaam Aazhang, Joachim Wehinger, Christoph F. Mecklenbräuker: *Bounds on the Delay-Constrained Capacity of UWB Communication with a Relay Node*, IEEE Transactions for Wireless Communications, Vol. 8, No. 5, pp. 2265-2273, May 2009.

[J17] Thomas Zemen, Christoph F. Mecklenbräuker, Florian Kaltenberger, Bernard H. Fleury: *Minimum-Energy Band-Limited Predictor with Dynamic Subspace Selection for Time-Variant Flat-Fading Channels*, in IEEE Transactions on Signal Processing, Vol. 55, No. 9, pp. 4534–4548, Sep. 2007.

[J16] Pei-Jung Chung, Johann F. Böhme, Christoph F. Mecklenbräuker, Alfred O. Hero: *Detection of the Number of Signals Using the Benjamini–Hochberg Procedure*, in IEEE Transactions on Signal Processing, Vol. 55, No. 6, pp. 2497–2508, Jun. 2007.

[J15] Joachim Wehinger and Christoph F. Mecklenbräuker: *Iterative CDMA Multiuser Receiver with Soft Decision-Directed Channel Estimation*, in IEEE Transactions on Signal Processing, Vol. 54, No. 10, pp. 3922–3934, Oct. 2006.

[J14] Thomas Zemen, Christoph F. Mecklenbräuker, Joachim Wehinger, Ralf R. Müller: *Iterative Joint Time-Variant Channel Estimation and Multi-User Decoding for MC-CDMA*, in IEEE Transactions on Wireless Communications, Vol. 5, No. 6, pp. 1469–1478, Jun. 2006.

[J13] Thomas Zemen and Christoph F. Mecklenbräuker: *Time Variant Channel Estimation using Discrete Prolate Spheroidal Sequences*, IEEE Transactions on Signal Processing, Vol. 53, No. 9, pp. 3597–3607, Sep. 2005.

[J12] Maja Lončar, Ralf R. Müller, Joachim Wehinger, Christoph F. Mecklenbräuker and Tetsushi Abe: *Iterative Channel Estimation and Data Detection in Frequency Selective Fading MIMO Channels*, European Transactions on Telecommunications (ETT), Vol. 15, Issue 5, pp. 459–470, Sep.–Oct. 2004.

[J11] Marius Pesavento, Christoph F. Mecklenbräuker and Johann F. Böhme: *Multi-dimensional Rank Reduction Estimator for Parametric MIMO Channel Models*, in EURASIP Journal on Applied Signal Processing (JASP), Special Issue on Advances in Smart Antennas, Vol. 2004, No. 9, pp. 1354–1363, Aug. 2004.

[J10] Christoph F. Mecklenbräuker and Markus Rupp: *Generalized Alamouti Codes for Trading Quality of Service against Data Rate in MIMO UMTS*, in EURASIP Journal of Applied Signal Processing (EURASIP JASP), Special Issue on MIMO Signal Processing, Vol. 2004, No. 5, pp. 662–675, May 2004.

[J9] Maja Lončar, Christoph F. Mecklenbräuker and Ralf R. Müller: *Co-Channel Interference Mitigation in GSM Networks by Iterative Estimation of Channel and Data*, in European Transactions on Telecommunications (ETT), Vol. 14, No. 1, pp. 71–80, Jan.–Feb. 2003.

[J8] Martin Steinbauer, Hüseyin Özcelik, Helmut Hofstetter, Christoph F. Mecklenbräuker and Ernst Bonek: *How to Quantify Multipath Separation*, IEICE Transactions C:on Electronics, Special Issue on *Signals, Systems and Electronics Technology*, Vol.E85–C, No. 3, pp. 552–557, Mar. 2002.

[J7] Martin Haardt, Christoph F. Mecklenbräuker, Marius Vollmer and Peter Slanina: *Smart Antennas for UTRA TDD*, European Transactions on Telecommunications (ETT), Special Issue on Smart Antennas, Vol. 12, Issue 5, Sep.–Oct. 2001 (**invited**).

[J6] Christoph F. Mecklenbräuker, Alex B. Gershman and Johann F. Böhme: *Broadband ML–Approach to Environmental Parameter Estimation in Shallow Ocean at Low SNR*, Signal Processing, Vol. 81, Issue 2, pp. 389–401, Elsevier Science B.V., Amsterdam, Feb. 2001.

[J5] Christoph F. Mecklenbräuker and Peter Gerstoft: *Objective Functions for Ocean Acoustic Inversion Derived by Likelihood Methods*, Journal of Computational Acoustics (JCA), World Scientific Publishers, Vol. 8, No. 2, pp. 259–270, Jun. 2000.

[J4] Christoph F. Mecklenbräuker, Peter Gerstoft, Johann F. Böhme and Pei-Jung Chung: *Hypothesis testing for geoacoustic environmental models*, Journal of the Acoustical Society of America (JASA), Vol. 105, No. 3, pp. 1738–1748, Mar. 1999.

[J3] Peter Gerstoft and Christoph F. Mecklenbräuker: *Ocean acoustic inversion with estimation of a posteriori probability distributions*, Journal of the Acoustical Society of America (JASA), Vol. 104, No. 2, pp. 808–817, Aug. 1998.

[J2] Alex B. Gershman, Christoph F. Mecklenbräuker and Johann F. Böhme: *Matrix Fitting Approach to Direction of Arrival Estimation with Imperfect Spatial Coherence of Wavefronts*, IEEE Trans. Signal Processing, Vol. 45, No. 7, pp. 1894–1899, Jul. 1997.

[J1] Ali-Reza Baghai-Wadji, Christoph F. Mecklenbräuker and Franz Seifert: *A convenient method for noise-free elastodynamic field calculations in general periodic SAW structures*, IEE Electronics Letters, vol.28, no.15, pp.1466-1468, Jul. 1992.

Submitted Journal Papers

Book Chapters

[B7] Aniruddha Chandra, Aleš Prokeš, Jiří 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.

[B3] Ernst Bonek, Thomas Neubauer, Christoph F. Mecklenbräuker: *Network Planning and Deployment Issues for MIMO Systems*, Chapter 12 in *MIMO Antenna Technology for Wireless Communications*, George Tsoulos (Ed.), Series in Electrical Engineering and Applied Signal Processing, CRC Press, 2006.

[B2] Ian Oppermann, Matti Hämälainen, 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,

C. Politano, T. Kaiser, A. Molisch, I. Oppermann, D. Porcino (Eds.), Hindawi Publishing Co., Spring 2006.

[B1] Christoph F. Mecklenbräuker, Joachim Wehinger, Thomas Zemen, Harold Artés, and Franz Hlawatsch: *Multiuser MIMO Channel Equalization*, in *Smart Antennas — State-of-the-Art,* EURASIP Book Series on Signal Processing and Communications, Vol. 3, Part I, Ch. 4, pp. 53–76, T. Kaiser, A. Bourdoux, H. Boche, J. Rodríguez Fonollosa, J. Bach Andersen, and W. Utschick (Eds.), Hindawi Publishing Co., 2006. ISBN 977-5945-09-7.

Doctoral Thesis

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

Peer-Reviewed Conference Contributions

[C214] Herbert Groll, Erich Zöchmann, Markus Hofer, Hussein Hammoud, Seun Sangodoyin, Thomas Zemen, Jiří Blumenstein, Aleš Prokeš, Andreas F. Molisch, Christoph F. Mecklenbräuker: 60 GHz V2I Channel Variability for Different Elevation Angle Switching Strategies, in Proc. 14th European Conference on Antennas and Propagation (EUCAP 2020), Copenhagen, Denmark, Mar. 15–20, 2020.

[C213] Alessandro Bazzi, Thomas Blazek, Michele Menarini, Barbara M. Masini, Alberto Zanella, Christoph F. Mecklenbräuker, Golsa Ghiaasi: A Hardware-in-the-Loop Evaluation of the Impact of the V2X Channel on the Traffic-Safety Versus Efficiency Trade-offs", in Proc. 14th European Conference on Antennas and Propagation (EUCAP 2020), Copenhagen, Denmark, Mar. 15–20, 2020.

[C212] Mehdi Ashury, Christian Eliasch, Thomas Blazek, Christoph F. Mecklenbräuker: Accuracy Requirements for Cooperative Radar with Sensor Fusion, in Proc. 14th European Conference on Antennas and Propagation (EUCAP 2020), Copenhagen, Denmark, Mar. 15–20, 2020.

[C211] Peter Gerstoft, Christoph F. Mecklenbräuker, Santosh Nannuru and Geert Leus: DOA Estimation in Heteroscedastic Noise with Sparse Bayesian Learning, 2020 International Applied Computational Electromagnetics Society (ACES) Symposium, Monterey (CA), USA, Mar. 22–26, 2020.

[C210] Herbert Groll, Erich Zöchmann, Peter Gerstoft, Christoph F. Mecklenbräuker, in Proc. 7th International Workshop on Computational Advances in Multiple Sensor Adaptive Processing (CAMSAP 2019), pp. 36–40, Le Gosier, Guadeloupe, French West Indies, Dec. 15–18, 2019.

[C209] Aleš Prokeš, Jiří Blumenstein, Josef Vychodil, Tomáš Mikulášek, Roman Marsalek, Erich Zöchmann, Herbert Groll, Christoph F. Mecklenbräuker, Thomas Zemen, Aniruddha Chandra, Hussein Hammoud, Andreas F. Molisch: Multipath Propagation Analysis for Vehicle-to-Infrastructure Communication at 60 GHz, in Proc. 2019 IEEE Vehicular Networking Conference (VNC 2019), pp. 244-251, Los Angeles (CA), USA, Dec. 4–5, 2019. doi:unbekannt

[208] Jiri Blumenstein, Jiri Milos, L. Polak and Christoph F. Mecklenbräuker, IEEE 802.11ad SC-PHY Layer Simulator: Performance in Real-world 60 GHz Indoor Channels, in Proc. 2019 IEEE Nordic Circuits and Systems Conference (NORCAS): NORCHIP and International Symposium of System-on-Chip (SoC), Helsinki, Finland, 2019, pp. 1-4. doi: 10.1109/NORCHIP.2019.8906960

[C207] Christoph F. Mecklenbräuker, Peter Gerstoft: Maximum-likelihood DOA estimation at low SNR in Laplace-like noise, in Proc. EUSIPCO 2019, A Coruna, Spain, Sep. 2–6, 2019.

[C206] Gerald Artner, Jerzy Kowalewski, Jude Atuegwu, Christoph F. Mecklenbräuker, Thomas Zwick: Electronically Steerable Parasitic Array Radiator Flush-Mounted for Automotive LTE, in Proc. 13th European Conference on Antennas and Propagation (EUCAP 2019), Krakov, Poland, Mar. 31, – Apr. 5, 2019.

[C205] Taulant Berisha, Christoph F. Mecklenbräuker: Smartphone-based Measurements On-Board FSS-aided Railway Vehicles, in Proc. 13th European Conference on Antennas and Propagation (EUCAP 2019), Krakov, Poland, Mar. 31, – Apr. 5, 2019

[C204] Thomas Blazek, Taulant Berisha, Edon Gashi, Bujar Krasniqi, Christoph F. Mecklenbräuker: A Stochastic Performance Model for Dense Vehicular Ad-Hoc Networks, in Proc. 13th European Conference on Antennas and Propagation (EUCAP 2019), , 2019

[C203] Ralf R. Müller, Ali Bereyhi, Christoph F. Mecklenbräuker: Oversampled Adaptive Sensing with Random Projections: Analysis and Algorithmic Approaches, in Proc. 2018 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT), Louisville (KY), USA; Dec. 6–8, 2018. doi:ISSPIT.2018.8642771

[C202] Jiří Blumenstein, Aleš Prokeš, Josef Vychodil, Tomáš Mikulášek, Jiří Milos, Erich Zöchmann, Herbert Groll, Christophg F. Mecklenbräuker, Markus Hofer, David Löschenbrand, Laura Bernado, Thomas Zemen, Seun Sangodoyin, Andreas Molisch: Measured High-Resolution Power-Delay Profiles of Nonstationary Vehicular Millimeter Wave Channels, in Proc. International Symposium on Personal, Indoor, Mobile Radio Communications (IEEE PIMRC 2018), Bologna, Italy, Sep. 9–12, 2018.

[C201] Thomas Blazek, Erich Zöchmann, Christoph F. Mecklenbräuker: Approximating Clustered Millimeter Wave Vehicular Channels by Sparse Subband Fitting, in Proc. International Symposium on Personal, Indoor, Mobile Radio Communications (IEEE PIMRC 2018), Bologna, Italy, Sep. 9–12, 2018.

[C200] Thomas Blazek, Erich Zöchmann, Christoph F. Mecklenbräuker: Model Order Selection for LASSO Fitted Millimeter Wave Vehicular Channel Data, in Proc. International Symposium on Personal, Indoor, Mobile Radio Communications (IEEE PIMRC 2018), Bologna, Italy, Sep. 9–12, 2018.

[C199] Christoph Mecklenbräuker, Peter Gerstoft, Geert Leus, Sparse Bayesian Learning for DOA Estimation of Correlated Sources, in Proc. IEEE SAM 2018, Sheffield, UK, July 2018.

[C198] Shrief Rizkalla, Ralph Prestros and Christoph Mecklenbräuker: HF RFID Card Optimization Regarding the IC?s Non-linearity, in Proc. European Conference on Smart Objects, Systems and Technologies (IEEE Smart Systech Conference 2018), Dresden, Germany, Jun. 12–13, 2018.

[C197] Shrief Rizkalla and Christoph Mecklenbräuker: Design of Standard-compliant Non-galvanic HF RFID Cards?, in Proc. IEEE Wireless Power Transfer Conference 2018, Montreal, Canada, Jun. 3–7, 2018.

[C196] Peter Gerstoft, Santosh Nannuru, Christoph F. Mecklenbräuker, Geert Leus: DOA Estimation in Heteroscedastic Noise with sparse Bayesian Learning, in Proc. IEEE ICASSP 2018, Calgary, Canada, Apr. 9-13, 2018.

[C195] Thomas Blazek, Golsa Ghiaasi, Christian Backfrieder, Gerald Ostermayer, Christoph F. Mecklenbräuker, IEEE 802.11p Performance for Vehicle-to-Anything Connectivity in Urban Interference Channels, in Proc. European Conference on Antennas and Propagation (EuCAP) 2018, London, UK, Apr. 9–13, 2018.

[C194] Gerald Artner, Philipp K. Gentner, Robert Langwieser, Christoph F. Mecklenbräuker: Simulation Model for Chassis Antenna Cavities Made from Carbon Fiber Reinforced Polymer, in Proc. European Conference on Antennas and Propagation (EuCAP) 2018, London, UK, Apr. 9–13, 2018.

[C193] Erich Zöchmann, Christoph F. Mecklenbräuker, Martin Lerch, Stefan Pratschner, Markus Hofer, David Löschenbrand, Jiří Blumenstein, Seun Sangodoyin, Gerald Artner, Sebastian Caban, Thomas Zemen, Aleš Prokeš, Markus Rupp, Andreas F. Molisch: Measured Delay and Doppler Profiles of Overtaking Vehicles at 60 GHz, in Proc. European Conference on Antennas and Propagation (EuCAP) 2018, London, UK, Apr. 9–13, 2018.

[C192] Christian Backfrieder, Manuel Lindorfer, Christoph F. Mecklenbräuker, Gerald Ostermayer: Robustness of Intelligent Vehicular Rerouting Towards Non-Ideal Communication Delay, in Proc. 2018 Future of Information and Communication Conference (FICC), Singapore, Apr. 5–6, 2018.

[C191] Ralf R. Müller, Christoph F. Mecklenbräuker, Ali Bereyhi: Oversampled Adaptive Sensing, Information Theory and Applications Workshop (ITA 2018), San Diego (CA), USA, Feb. 16, 2018.

[C190] Christian Backfrieder, Manuel Lindorfer, Christoph F. Mecklenbräuker, Gerald Ostermayer: Effects of Cooperative Lane-Change Behavior on Vehicular Traffic Flow, in Proc. EUROCAST 2017: 16th International Conference on Computer Aided Systems Theory, Springer, pp. 454–461, Las Palmas, Gran Canaria, 2017.

[C189] Thomas Blazek and Christoph F. Mecklenbräuker: Sparse Time-Variant Impulse Response Estimation for Vehicular Channels Using the c-LASSO, in Proc. IEEE PIMRC 2017, Oct. 2017.

[C188] Nima Riahi, Peter Gerstoft, Christoph F. Mecklenbräuker: Graph Clustering for Localization within a Sensor Array, in Proc. EUSIPCO 2017, Kos Island, Greece, Aug. 28, – Sep. 1, 2017.

[C187] Gerald Artner, Robert Langwieser, Christoph F. Mecklenbräuker: 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.

[C186] Thomas Blazek, Christoph F. Mecklenbräuker, 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.

[C185] Taulant Berisha, Philipp Svoboda, Stephan Ojak, Christoph F. Mecklenbräuker: SegHyPer: Segmentation- and Hypothesis based Network Performance Evaluation for High Speed Train Users, Poster: IEEE International Conference on Communications (ICC 2017), Paris, France; 21.05.2017 - 25.05.2017; in: IEEE International Conference on Communications, IEEE Xplore, Paris, France (2017), ISBN: 978-1-4673-8999-0; pp. 1–6.

[C184] Erich Zöchmann, Robert Langwieser, Sebastian Caban, Martin Lerch, Stefan Pratschner, Roland Nissel, Christoph F. Mecklenbräuker, Markus Rupp: A Millimeter Wave Testbed for Repeatable High Velocity Measurements, in Proc. European Wireless 2017, pp. 358–362, Dresden, Germany, May 17–19, 2017. ISBN: 978-3-8007-4426-8;

[C183] Shrief Rizkalla, Ralph Prestros, Christoph F. Mecklenbräuker: Deembedding Transformer-based Method for Characterizing the Chip of HF RFID Cards, Poster: IEEE Wireless Power Transfer Conference (WPTC 2017), Taipei, Taiwan; 10.05.2017 - 12.05.2017; in Proc. IEEE Wireless Power Transfer Conference 2017, pp. 1–4.

[C182] Gerald Artner, Robert Langwieser, Christoph F. Mecklenbräuker: Carbon Fiber Reinforced Polymer as Antenna Ground Plane Material Up to 10GHz, in Proc. European Conference on Antennas and Propagation (EuCAP) 2017, Paris, France; 19.03.2017 - 24.03.2017; in 11th European Conference on Antennas and Propagation (EuCAP), (2017), 5 pages.

[C181] Gerald Artner, J. Kowalewski, Christoph F. Mecklenbräuker, Thomas Zwick: Pattern Reconfigurable Antenna With Four Directions Hidden in the Vehicle Roof, Poster: International Workshop on Antenna Technology (iWAT), Athen; 01.03.2017 - 03.03.2017; in Proc. International Workshop on Antenna Technology: Small Antennas, Innovative Structures, and Applications (iWAT 2017), 4 pages.

[C180] Taulant Berisha, Philipp Svoboda, Stephan Ojak, Christoph F. Mecklenbräuker: Cellular network quality improvements for high speed train passengers by on-board amplify-and-forward relays, in Proc. International Symposium on Wireless Communication Systems (ISWCS), Poznan, Poland Sep. 20–23, 2016. doi:10.1109/ISWCS.2016.7600923

[C179] Erich Zöchmann, Martin Lerch, Sebastian Caban, Robert Langwieser, Christoph F. Mecklenbräuker, Markus Rupp: Directional Evaluation of Receive Power, Rician K-factor and RMS Delay Spread obtained from Power Measurements of 60 GHz Indoor Channels, 2016 IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications (APWC), Cairns, Australia, Sep. 19–23, 2016. doi:10.1109/APWC.2016.7738168

[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

[C176] Florian Xaver, Christoph F. Mecklenbräuker, Peter Gerstoft, Gerald Matz: Weiss-Weinstein Bounds for Various Priors, in Proc. 2016 IEEE 9th Sensor Array and Multichannel Signal Processing Workshop (SAM), Rio de Janeiro, Brazil, p. 1–5, Jul. 2016. doi:10.1109/SAM.2016.7569714

[C175] Peter Gerstoft, Angeliki Xenaki, Christoph F. Mecklenbräuker, and Erich Zöchmann: Multiple Snapshot Compressive Beamforming, in Proc. 49th Asilomar Conference on Signals, Systems, and Computing, Pacific Grove (CA), USA, Nov. 2015. doi:10.1109/ACSSC.2015.7421456

[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.

[C173] Erich Zöchmann, Peter Gerstoft, Christoph F. Mecklenbräuker: Density Evolution of Sparse Source Signals, in Proc. 3rd Int. Workshop on Compressed Sensing Theory and its Applications to Radar, Sonar and Remote Sensing (CoSeRa 2015), Pisa, Italy, pp. 124–128, Jun. 2015. doi:10.1109/CoSeRa.2015.7330277

[C172] Christoph Mecklenbräuker, Aleš Prokeš, Jiří Blumenstein, Thomas Zemen: Characterization of short range intra-vehicle wireless links comparing Ultrawideband 3-11 GHz and Millimeter Waves 55-65

GHz, Workshop on Advances of Microwave Technologies for Vehicular Communication, IEEE International Microwave Symposium (IMS), Phoenix (AZ), USA, 17-22 May 2015 (invited).

[C171] Mingming Gan, Zhinan Xu, Christoph F. Mecklenbräuker, Thomas Zemen, Cluster Lifetime Characterization for Vehicular Communication Channels in Proc. 9th European Conference on Antennas and Propagation (EuCAP 2015).

[C170] Zhinan Xu, Mingming Gan, Christoph F. Mecklenbräuker, Thomas Zemen, Cluster Spreads for Time-Variant Vehicular Channels in Proc. 9th European Conference on Antennas and Propagation (EuCAP 2015).

[C169] Jiří Blumenstein, Aleš Prokeš, Roman Marsalek, Christoph F. Mecklenbräuker, Impulse noise mitigation for OFDM by time- frequency spreading. in Proc. Multiple Access Communications (MACOM 2013), Springer International Publishing. pp. 8–20, 2013.

[C168] Aniruddha Chandra, Jiří Blumenstein, T. Mikusalek, J. Vychodil, M. Pospisil, Roman Marsalek, Aleš Prokeš, Thomas Zemen, Christoph F. Mecklenbräuker, CLEAN Algorithms for Intra-Vehicular Time-Domain UWB Channel Sounding. International Conference on Pervasive and Embedded Computing and Communication Systems, (PECCS 2015), pp. 1–6, 2015.

[C167] N. Gvozdenovic, L.W. Mayer, R. Prestros, C. Mecklenbräuker, Arpad L. Scholtz: PEEC modeling of circular spiral coils, in Proc. Microwave Conference (EuMC), 2013 European, Nürnberg, Germany (invited); 06.10.2013 - 10.10.2013; in: "Microwave Conference (EuMC), 2013 European," (2013), S. 1103 - 1106.

[C166] Martin Böck, Andreas Kugi, Christoph F. Mecklenbräuker: Queue-Based Dynamic Power Control Approach for Wireless Communication Networks, in Proc. International Symposium on Communications, Control and Signal Processing (ISCCSP), Athen (invited); 21.05.2014 - 23.05.2014; in: "Proc. 6th International Symposium on Communications, Control, and Signal Processing", IEEE, (2014), S. 404 - 407.

[C165] Jiří Blumenstein, Tomáš Mikulášek, Roman Marsalek, Aniruddha Chandra, Aleš Prokeš, Thomas Zemen, Christoph F. Mecklenbräuker: In-vehicle UWB Channel Measurement, Model and Spatial Stationarity, in Proc. 2014 IEEE Vehicular Networking Conference (VNC 2014), pp. 77–80, Dec. 3–5, 2014. doi:10.1109/VNC.2014.7013312

[C164] Jiří Blumenstein, Tomáš Mikulášek, Thomas Zemen, Christoph F. Mecklenbräuker, Roman Maršalek, Aleš Prokeš: In-vehicle mm-Wave

Channel Model and Measurement, in Proc. 2014 80th IEEE Vehicular Technology Conference (VTC 2014-fall), pp. 1–5, Vancouver, BC, Canada, Dec. 3–5, 2014. doi:10.1109/VTCFall.2014.6966022

[C163] Christian Backfrieder, Christoph F. Mecklenbräuker, Gerald Ostermayer: TraffSim – A Traffic Simulator for Investigating Benefits Ensuing from Intelligent Traffic Management, in Proceedings of the 2013 European Modelling Symposium, Manchester, UK, Nov. 20–22, 2013. DOI: 10.1109/EMS.2013.76

[C162] Levent Ekiz, Adrian Posselt, Oliver Klemp, Christoph F. Mecklenbräuker: Assessment of Design Methodologies for Vehicular 802.11p Antenna Systems, accepted in Proc. 2014 International Conference on Connected Vehicles and Expo.

[C161] Gregor Lasser, David Löschenbrand, Christoph F. Mecklenbräuker: Near Field Scans of Tyre mounted Dipoles using a separate Phase Reference Antenna, in Proc. IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications, Palm Beach, Aruba, August 3-9, 2014.

[C160] Gerald Artner, Robert Langwieser, Gregor Lasser, Christoph F. Mecklenbräuker: Effect of Carbon-Fiber Composites as Ground Plane Material on Antenna Performance, in Proc. IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications, Palm Beach, Aruba, August 3-9, 2014.

[C159] Veronika Shivaldova, Andreas Winkelbauer, and Christoph F. Mecklenbräuker: Realistic Performance Model for Vehicle-to-Infrastructure Communications, in Proc. 17th International Symposium on Wireless Personal Multimedia Communications (WPMC'2014). Sydney, Australia, Sep. 7–10, 2014.

[C158] Nikola Gvozdenovic, Ralph Prestros, Christoph F. Mecklenbräuker: HF RFID Spiral Inductor Synthesis and Optimization, in Proc. 17th International Symposium on Wireless Personal Multimedia Communications (WPMC'2014), Sydney, Australia, Sep. 7–10, 2014.

[C157] Veronika Shivaldova and Christoph F. Mecklenbräuker: Quantization-based Complexity Reduction for Range-dependent Modified Gilbert Model, 2014 IEEE 8th Sensor Array and Multichannel Signal Processing Workshop (SAM), Jun., 2014.

[C156] Nikola Gvozdenovic, Lukas W. Mayer, and Christoph F. Mecklenbräuker: Measurement of harmonic distortions and impedance of HF RFID chips, in Proc. 7th European Conference on Antennas and

Propagation (EuCAP), pp.3548–3552, Den Haag, Netherlands, Apr. 6–11, 2014.

[C155] Adrian Posselt, Levent Ekiz, Oliver Klemp, Bernd Geck, and Christoph F. Mecklenbräuker: System Level Evaluation for Vehicular MIMO Antennas in Simulated and Measured Channels, in Proc. 7th European Conference on Antennas and Propagation (EuCAP), pp. 3678–3681, Den Haag, Netherlands, Apr. 6–11, 2014.

[C154] Philipp K. Gentner, Holger Arthaber, Arpad L. Scholtz, Christoph F. Mecklenbräuker: Passive MEMS Antenna Structures for an Hybrid UHF/UWB RFID Tag, in Proc. 7th European Conference on Antennas and Propagation (EuCAP), pp. 4248–4251, Den Haag, Netherlands, Apr. 6–11, 2014. doi:10.1109/EuCAP.2014.6902619.

[C153] Christoph F. Mecklenbräuker and Peter Gerstoft: Sequential Bayesian Reconstruction of Sparse Source from Sensor Array Data, Information Theory and Applications Workshop (ITA 2014), San Diego (CA), USA, Feb. , 2014.

[C152] Manfred Westreicher, Lukas W. Mayer, Ralph Prestros, Christoph F. Mecklenbräuker: Efficient Rectangular Spiral Coil Simulation Based on Partial Element Equivalent Circuit Method Using Quasistationary Approximation, in Proc. Loughborough Antennas and Propagation Conference (LAPC 2013), Loughborough, UK, Nov. 11–12, 2013.

[C151] Mona Shemshaki, Thomas Zemen, Christoph F. Mecklenbräuker: Antenna selection diversity for IEEE 802.11p, in Proc. IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society, 6876 - 6879 Nov. 10–13, 2013.

[C150] L. Ekiz, T. Patelczyk, O. Klemp, C. F. Mecklenbräuker: Compensation of vehicle-specific antenna radome effects at 5.9 GHz, in Proc. IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society, 6880 - 6884 Nov. 10–13, 2013. doi:10.1109/IECON.2013.6700272

[C149] Taimoor Abbas, Laura Bernadó, Andreas Thiel, Christoph F. Mecklenbräuker, and Fredrik Tufvesson: Measurements Based Channel Characterization for Vehicle-to-Vehicle Communications at Merging Lanes on Highway, in Proc. WiVec 2013, Dresden, Germany, Jun. 2, 2013.

[C148] Veronika Shivaldova, Christoph F. Mecklenbräuker: Real-World Measurements-based Evaluation of IEEE 802.11p System Performance, in Proc. WiVec 2013, Dresden, Germany, Jun. 2, 2013.

[C147] Gregor Lasser, Robert Langwieser, Christoph Mecklenbräuker: Aktive Trgerunterdrckung bei RFID - Vergleich verschiedener automatischer Ableichalgorithmen, in Proc. RADCOM 2013 Radar, Communication and Measurement, Hamburg (invited); 24.04.2013 - 25.04.2013; in: "RADCOM - Radar, Communication and Measurement", RADCOM 2013 Radar, Communication and Measurement, (2013), 28 S.

[C146] Jörg Nuckelt, Taimoor Abbas, Fredrik Tufvesson, Christoph F. Mecklenbräuker, Laura Bernadó and Thomas Kürner: Comparison of Ray Tracing and Channel-Sounder Measurements for Vehicular Communications, in Proc. VTC 2013 Spring, Dresden, Germany, Jun. 2–5, 2013.

[C145] Veronika Shivaldova, Christoph F. Mecklenbräuker: A Two-State Packet Error Model for Vehicle-to-Infrastructure Communications, in Proc. IEEE 78th Vehicular Technology Conference (VTC2013-Fall), Las Vegas, USA; Sep. 2–5, 2013.

[C144] Levent Ekiz, Andreas Thiel, Oliver Klemp, Christoph F. Mecklenbräuker: MIMO performance evaluation of automotive qualified LTE antennas, in Proc. 7th European Conference on Antennas and Propagation (EuCAP), pp. 1412-1416, Göteborg, Sweden, Apr. 8–12, 2013. Print ISBN: 978-1-4673-2187-7

[C143] Levent Ekiz, Christian Lottermann, David Öhmann, Thang Tran, Oliver Klemp, Christian Wietfeld, Christoph Mecklenbräuker: Potential of cooperative information for vertical handover decision algorithms, in Proc. 16th International IEEE Conference on Intelligent Transportation Systems (ITSC 2013), pp. 455–460, Den Haag, Netherlands, Oct. 2013. doi:10.1109/ITSC.2013.6728273

[C142] Nikola Gvozdenovic, William Thompson, Mark A. Beach, Christoph F. Mecklenbräuker, Geoffrey S. Hilton: Short Range Ultra-Wideband Multiple Input Multiple Output Channel Measurements, in Proc. IEEE Wireless Communications and Networking Conference 2013, Shanghai, China, pp. 2575–2578, Apr. 2013. doi:10.1109/WCNC.2013.6554967.

[C141] Enis Kocan, Milica Pejanovic–Djurisic, Christoph F. Mecklenbräuker: On the ergodic capacity of dual-hop OFDM based DF relay system with subcarrier mapping, 1st International Conference on Communications, Signal Processing, and their Applications (ICCSPA), Sharjah, Feb. 12–14, 2013. doi:10.1109/ICCSPA.2013.6487294. Print ISBN: 978-1-4673-2820-3. INSPEC Accession Number: 13414840.

[C140] Arrate Alonso, Christoph F. Mecklenbräuker: Stabilization time comparison of CSMA and Self-Organizing TDMA for different channel loads in VANETS, in Proc. 12th International Conference on ITS Telecommunications (ITST), pp. 300–305, Taipei, Nov. 5–8, 2012. doi:10.1109/ITST.2012.6425187

[C139] Georg Maier, Alexander Paier, Christoph F. Mecklenbräuker: Channel Tracking for a Multi-Antenna ITS System Based on Vehicle-to-Vehicle Tunnel Measurements, in Proc. 19th IEEE Symposium on Communications and Vehicular Technology in the Benelux (SCVT 2012), Eindhoven, Netherlands, Nov. 16, 2012.

[C138] Peter Gerstoft, Christoph F. Mecklenbräuker, Huajian Yao: Bayesian Sparse Sensing of the Japanese 2011 Earthquake, in Proc. 46th Asilomar Conference on Signals, Systems, and Computing, Pacific Grove (CA), USA, Nov. 4–7, 2012.

[C137] Gregor Lasser, Lukas W. Mayer, Christoph F. Mecklenbräuker: Compact Low Profile UHF Switched-Beam Antenna for Advanced Tyre Monitoring Systems, in Proc. 14th International Conference on Electromagnetics in Advanced Applications (ICEAA 2012 IEEE APWC), Cape Town, South Africa, Sep. 2–7, 2012.

[C136] Gregor Lasser, Christoph F. Mecklenbräuker: Vehicular Low-Profile Dual-Band Antenna for Advanced Tyre Monitoring Systems, in Proc. 23rd Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2012), Sydney, Australia, Sep. 9–12, 2012.

[C135] Laura Bernadó, Thomas Zemen, Fredrik Tufvesson, Andreas F. Molisch, Christoph F. Mecklenbräuker: The (in-)validity of the WSSUS Assumption in Vehicular Radio Channels, in Proc. 23rd Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2012), Sydney, Australia, Sep. 9–12, 2012.

[C134] Veronika Shivaldova, Alexander Paier, Dieter Smely, Christoph F. Mecklenbräuker: On Roadside Unit Antenna Measurements for Vehicle-to-Infrastructure Communications, in Proc. 23rd Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2012), Sydney, Australia, Sep. 9–12, 2012.

[C133] Georg Maier, Alexander Paier, Christoph F. Mecklenbräuker: Performance Evaluation of IEEE 802.11p Infrastructure-to-Vehicle Real-World Measurements with Receive Diversity, in Proc. IWCMC 2012, Vehicular Communications Symposium at 8th International Wireless Communications and Mobile Computing Conference (IWCMC 2012-VehCom), Limassol, Cyprus, Aug. 27–31, 2012.

[C132] Philipp K. Gentner, Günter Hofer, Arpad L. Scholtz, Christoph F. Mecklenbräuker: Accurate Measurement of Power Transfer to an RFID Tag with On-chip Antenna, in Proc. 32nd Progress In Electromagnetics Research Symposium (PIERS 2012), Moscow, Russia, Aug. 19–23, 2012.

[C131] Veronika Shivaldova, Thomas Paulin, Alexander Paier, Christoph F. Mecklenbräuker: Performance Measurements of Multi-hop Communications in Vehicular Ad Hoc Networks, in Proc. IEEE ICC 2012, Workshop on Intelligent Vehicular Networking: V2V/V2I Communications and Applications (WIVN), Ottawa, Canada, Jun. 11, 2012.

[C131'] G. Lasser, J. Grosinger, R. Langwieser, C. Mecklenbräuker: "Measurement Based Performance Evaluation of Advanced Tyre Monitoring Systems using RFID Technology," Talk: International Microwave Symposium 2012, Montreal, Canada (invited); 06-17-2012 - 06-22-2012; in: "WFH: RFID-based Low-Cost Smart Sensor Networks for Challenging Environments", IEEE, (2012), ISBN: 978-1-4673-1086-4.

[C130] Philipp K. Gentner, Ayse Adalan, Arpad L. Scholtz, Christoph F. Mecklenbräuker: Impact Analysis of Silicon and Bondwires on an On-Chip Antenna, in Proc. 6th European Conference on Antennas and Propagation (EuCAP 2012), Prague, Czech Republic, Mar. 26–30, 2012.

[C129] Christoph F. Mecklenbräuker, Peter Gerstoft, Huajian Yao: Bayesian Sparse Wideband Source Reconstruction of Japanese 2011 Earthquake, in Proc. 4th International Workshop on Computational Advances in Multiple Sensor Adaptive Processing (CAMSAP 2011), pp. 273–276, San Juan, Puerto Rico, Dec. 13–16, 2011.

[C128] Philipp K. Gentner, Martin Wiesflecker, Günter Hofer, Christoph F. Mecklenbräuker: Bandwidth reconfigurable UWB RFID tag with on-chip antenna, in Proc. Loughborough Antennas and Propagation Conference (LAPC 2011), Loughborough, UK, Nov. 14–15, 2011.

[C127] Nikola Gvozdenovic, Philipp K. Gentner, Christoph F. Mecklenbräuker: Antenna Array for the reader of an Ultra-Wideband identification tag with On-Chip Antenna, in Proc. Loughborough Antennas and Propagation Conference (LAPC 2011), Loughborough, UK, Nov. 14–15, 2011.

[C126] Bujar Krasniqi, Christoph F. Mecklenbräuker: Maximization of the Minimum Rate by Geometric Programming for Multiple Users in Partial Frequency Reuse Cellular Networks, in Proc. 2011 IEEE 74th Vehicular Technology Conference, San Francisco (CA), USA, Sep. 5–8, 2011.

[C125] Bujar Krasniqi, Christoph F. Mecklenbräuker: Efficiency of Partial Frequency Reuse in Power Used Depending on Users Selection for Cellular Networks, in Proc. 22nd Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2011), Toronto, Canada, Sep. 11–14, 2011.

[C124] Philipp K. Gentner, Martin Wiessflecker, Holger Arthaber, Arpad L. Scholtz, Christoph F. Mecklenbräuker: Measured Wideband Near-field Characteristics of an UWB RFID Tag with On-Chip Antenna, in Proc. 2011 IEEE International Conference on Ultra Wideband (ICUWB), Bologna, Italy, Sep. 14–16, 2011.

[C123] Arrate Alonso, Dieter Smely, Christoph F. Mecklenbräuker: Throughput of Self-Organizing Time Division Multiple Access MAC Layer for Vehicular Networks based on measured SNR time-series, in Proc. 4th International Symposium on Wireless Vehicular Communications (WIVEC 2011), San Francisco, USA, Sep. 5–6, 2011.

[C122] Veronika Shivaldova, Georg Maier, Dieter Smely, Nicolai Czink, Alexander Paier, Christoph F. Mecklenbräuker: Performance Analysis of Vehicle-To-Vehicle Tunnel Measurements At 5.9 GHz, in Proc. XXX URSI General Assembly and Scientific Symposium, Istanbul, Turkey, Aug. 13–20, 2011.

[C121] Veronika Shivaldova, Georg Maier, Dieter Smely, Nicolai Czink, Arrate Alonso, Andreas Winkelbauer, Alexander Paier, Christoph F. Mecklenbräuker: "Performance Evaluation of IEEE 802.11p Infrastructure-to-Vehicle Tunnel Measurements," in Proc. IEEE IWCMC 2011 Jul. 5–8, 2011, in Istanbul, Turkey.

[C120] Laura Bernadó, Anna Roma, Thomas Zemen, Nicolai Czink, Johan Karedal, Alexander Paier, Andreas Thiel, Fredrik Tufvesson, Andreas F. Molisch, Christoph F. Mecklenbräuker: "In-Tunnel Vehicular Radio Channel Characterization," in Proc. IEEE 73rd Vehicular Technology Conference (VTC2011-Spring), Budapest, Hungary, May 15–18, 2011.

[C119] Gregor Lasser, Robert Langwieser, Florian Xaver, Christoph F. Mecklenbräuker: Dual-band channel gain statistics for dual-antenna tyre pressure monitoring RFID tags, 2011 IEEE International Conference on RFID, pp. 57–61, Orlando (FL), USA, Apr. 12–14, 2011. doi:10.1109/RFID.2011.5764637.

[C118] Georg Maier, Alexander Paier, and Christoph F. Mecklenbräuker: "Packet Detection and Frequency Synchronization with Antenna Diversity for IEEE 802.11p Based on Real-World Measurements," in

Proc. International ITG Workshop on Smart Antennas (WSA 2011), Aachen, Germany, Feb. 24–25, 2011.

[C117] Christoph F. Mecklenbräuker, Michail Matthaiou, Mats Viberg: "Eigenbeam Transmission over Line-of-Sight MIMO Channels for Fixed Microwave Links," in Proc. International ITG Workshop on Smart Antennas (WSA 2011), Aachen, Germany, Feb. 24–25, 2011.

[C116] Alexander Paier, Daniele Faetani, Christoph F. Mecklenbräuker: "Performance Evaluation of IEEE 802.11p Physical Layer Infrastructure-to-Vehicle Real-World Measurements," in Proc. 3rd International Symposium on Applied Sciences in Biomedical and Communication Technologies (ISABEL 2010), Rome, Italy, Nov. 7–10, 2010 (invited).

[C115] Gordhan Das Menghwar, Christoph F. Mecklenbräuker: "Outage Probability of Alamouti based Cooperative Communications with Multiple Relay Nodes using Network Coding," in Proc. 3rd International Symposium on Applied Sciences in Biomedical and Communication Technologies (ISABEL 2010), Rome, Italy, Nov. 7–10, 2010 (invited).

[C114] Bujar Krasniqi, Martin Wolkerstorfer, Christian Mehlführer, Christoph F. Mecklenbräuker: "Sum-Rate Maximization for Multiple Users in Partial Frequency Reuse Cellular Networks," in Proc. IEEE Globecom 2010 Workshop on Broadband Wireless Access (BWA 2010), Miami (FL), USA, Dec. 6–10, 2010.

[C113] Bujar Krasniqi, Martin Wolkerstorfer, Christian Mehlführer, Christoph F. Mecklenbräuker: "Sum-Rate Maximization by Bandwidth Re-allocation for Two Users in Partial Frequency Reuse Cellular Networks," in Proc. 44th Asilomar Conference on Signals, Systems, and Computing, Pacific Grove (CA), USA, Nov. 7–10, 2010.

[C112] Florian Xaver, Christoph F. Mecklenbräuker, Peter Gerstoft, Gerald Matz: "Distributed State and Field Estimation Using Particle Filter," in Proc. 44th Asilomar Conference on Signals, Systems, and Computing, Pacific Grove (CA), USA, Nov. 7–10, 2010.

[C111] Jasmin Grosinger, Christoph F. Mecklenbräuker, Arpad L. Scholtz: "UHF RFID Transponder Chip and Antenna Impedance Measurements," in Proc. Third International EURASIP Workshop on RFID Technology (RFID 2010), La Manga del Mar Menor, Cartagena, Spain, Sep. 6–7, 2010.

[C110] Jasmin Grosinger, Christoph F. Mecklenbräuker, Arpad L. Scholtz: "Design Considerations for UHF Antennas Deployed Inside Car Tires," in Proc. EEEfCOM, Ulm, Germany, Jun. 16–17, 2010.

[C109] Philipp K. Gentner, Geoffrey Hilton, Mark A. Beach, Christoph F Mecklenbräuker: "Near and Farfield Analysis of Ultra Wideband Impulse Radio Beamforming in the Time domain," in Proc. International Conference on Ultrawideband Radio (ICUWB 2010), Nanjing, China, Sep. 20–23, 2010.

[C108] Gregor Lasser and Christoph F. Mecklenbräuker: "Dual-Band Channel Measurements for an Advanced Tyre Monitoring System," in Proc. 71st Vehicular Technology Conference (VTC 2010 Spring), Taipei, Taiwan, May 16–19, 2010.

[C107] Carolina Reyes, Thibault Hilaire, Steffen Paul, Christoph F. Mecklenbräuker: "Evaluation of the Root Mean Square Error Performance of the PAST-Consensus Algorithm," in Proc. International ITG Workshop on Smart Antennas (WSA 2010), Bremen, Germany, Feb. 23–24, 2010.

[C106] Philipp K. Gentner, Wolfgang Gartner, Christoph F. Mecklenbräuker: "Towards an Hardware Implementation of Ultra Wideband Beamforming," in Proc. International ITG Workshop on Smart Antennas (WSA 2010), Bremen, Germany, Feb. 23–24, 2010.

[C105] Gordhan Das Menghwar, Christoph F. Mecklenbräuker: "Outage Analysis of Cooperative Space-Time Codes with Network Coding," in Proc. International ITG Workshop on Smart Antennas (WSA 2010), Bremen, Germany, Feb. 23–24, 2010.

[C104] Carolina Reyes, Thibault Hilaire, Christoph F. Mecklenbräuker: Distributed Projection Approximation Subspace Tracking Based on Consensus Propagation, in Proc. 3rd International Workshop on Computational Advances in Multiple Sensor Adaptive Processing (CAMSAP 2009), Aruba, Dutch Antilles, Dec. 13–16, 2009.

[C103] Gordhan Das Menghwar, Christoph F. Mecklenbräuker: "Block-Markov Encoding Implementation with Network Coding for Cooperative Communications: A Diversity-Multiplexing Tradeoff Perspective," in Proc. 2nd International Symposium on Applied Sciences in Biomedical and Communication Technologies (ISABEL 2009), Bratislava, Slovak Republic, Nov. 22–27, 2009 (invited).

[C102] Jasmin Grosinger, Lukas W. Mayer, Christoph F. Mecklenbräuker, Arpad L. Scholtz: "Input Impedance Measurement of a Dipole Antenna Mounted on a Car Tire," in Proc. 2009 International Sympo-

sium on Antennas and Propagation (ISAP 2009), Bangkok, Thailand, Oct. 20–23, 2009.

[C101] Bujar Krasniqi, Martin Wrulich, Christoph F. Mecklenbräuker: "Network-Load Dependent Partial Frequency Reuse for LTE," in Proc. IEEE 9th International Symposium on Wireless Communication Systems 2009 (ISCIT 2009), Incheon, Korea, Sep. 2009.

[C100] Gordhan Das Menghwar, Christoph F. Mecklenbräuker: "Outage Performance of Two Users Cooperative Network Coding," in Proc. IEEE 9th International Symposium on Wireless Communication Systems 2009 (ISCIT 2009), Incheon, Korea, Sep. 2009.

[C99] Gordhan Das Menghwar, Syed Asif Ali Shah, Christoph F. Mecklenbräuker: "Cooperative Space-Time Codes with Opportunistic Network Coding with Increasing Numbers of Nodes," in Proc. IEEE 6th International Symposium on Wireless Communication Systems 2009 (ISWCS09), Siena, Italy, Sep. 2009.

[C98] Johan Karedal, Fredrik Tufvesson, Nicolai Czink, Alexander Paier, Charlotte Dumard, Thomas Zemen, Christoph F. Mecklenbräuker, Andreas F. Molisch: "Measurement-Based Modeling of Vehicle-to-Vehicle MIMO Channels," in Proc. IEEE ICC 2009 Wireless Communications Symposium, Dresden, Germany, Jun. 14–18, 2009.

[C97] Gordhan Das Menghwar, Christoph F. Mecklenbräuker: "Throughput and Outage for Block-Markov Encoding Implementation with Network Coding for Cooperative Communications," Wireless VITAE'09, Aalborg, Denmark, May 2009.

[C96] Pei-Jung Chung, Mats Viberg, Christoph F. Mecklenbräuker: "Broadband ML Estimation Under Model Order Uncertainty," in Proc. IEEE ICASSP 2009, Taipei, Taiwan, Apr. 19–24, 2009.

[C95] Gordhan Das Menghwar, Bujar Krasniqi, Asif Ali Shah, Christoph F. Mecklenbräuker: "Cooperative Space-Time Codes with Opportunistic Network Coding," Sarnoff Symposium (student paper), Princeton (NJ), USA, Mar.–Apr. 2009.

[C94] Gordhan Das Menghwar, Christoph F. Mecklenbräuker: "Cooperative versus Non-cooperative Communications," in Proc. Second IEEE International Conference on Computer, Control, and Communication (IEEE-IC4), Karachi, Pakistan, Feb. 17–18, 2009.

[C93] Ayse Adalan, Michael Fischer, Thomas Gigl, Klaus Witrisal, Arpad L. Scholtz, Christoph F. Mecklenbräuker: "Ultra-Wideband Radio Pulse Shaping Filter Design for IEEE 802.15.4a Transmitter," in Proc. IEEE

Wireless Communications and Networking Conference (WCNC 2009), Budapest, Hungary, Apr. 5–8, 2009.

[C92] Alexander Paier, Thomas Zemen, Johan Karedal, Nicolai Czink, Charlotte Dumard, Fredrik Tufvesson, Christoph F. Mecklenbräuker, Andreas F. Molisch: "Spatial Diversity and Spatial Correlation Evaluation of Measured Vehicle-to-Vehicle Radio Channels at 5.2 GHz," in Proc. 13th DSP Workshop and 5th SPE Workshop, Hilton Marco Island Beach Resort, Marco Island (FL), USA, Jan. 4–7, 2009.

[C91] Andreas F. Molisch, Fredrik Tufvesson, Johan Karedal, Christoph F. Mecklenbräuker: "Propagation aspects of vehicle-to-vehicle communications — an overview," in Proc. IEEE Radio and Wireless Symposium (RAWCON 2009), San Diego (CA), USA, Jan. 18–22, 2009.

[C90] Giulio Coluccia, Erwin Riegler, Christoph F. Mecklenbräuker, Giorgio Taricco: "Optimum MIMO–OFDM receivers with imperfect channel state information," in Proc. IEEE GLOBECOM, New Orleans (LA), USA, Nov. 30, 2008 — Dec. 4, 2008.

[C89] Michael Fischer, Ayse Adalan, Arpad L. Scholtz, Christoph F. Mecklenbräuker: "Architecture of a Modular IEEE 802.15.4a Ultra-Wideband Transmitter," in Proc. Microelectronics Conference (ME 2008), Vienna, Austria, Oct. 15–16, 2008.

[C88] Pei-Jung Chung, Christoph F. Mecklenbräuker: Deterministic ML Estimation for Unknown Numbers of Signals, in Proc. EUSIPCO 2008, Lausanne, Switzerland, August 2008.

[C87] Laura Bernadó, Thomas Zemen, Alexander Paier, Gerald Matz, Johan Karedal, Nicolai Czink, Charlotte Dumard, Fredrik Tufvesson, Martin Hagenauer, Andreas F. Molisch, Christoph F. Mecklenbräuker: "Non–WSSUS vehicular channel characterization at 5.2 GHz – Spectral divergence and time-variant coherence parameters," in Proc. XXIX General Assembly of the International Union of Radio Science (URSI), Chicago (IL), USA, Aug. 7–16, 2008.

[C86] Alexander Paier, Thomas Zemen, Laura Bernadó, Gerald Matz, Johan Karedal, Nicolai Czink, Charlotte Dumard, Fredrik Tufvesson, Andreas F. Molisch, Christoph F. Mecklenbräuker: "Non–WSSUS vehicular channel characterization in highway and urban scenarios at 5.2 GHz using the local scattering function," in Proc. International ITG/IEEE Workshop on Smart Antennas (WSA 2008), Darmstadt, Germany, Feb. 26–27, 2008.

[C85] Nicolai Czink, Pei-Jung Chung, Dirk Maiwald, Bernard H. Fleury, Christoph F. Mecklenbräuker: "Determining the number of propagation paths from broadband MIMO measurements via bootstrapped likelihoods and the false discovery rate criterion — Part II: Application," in Proc. IEEE 2nd International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP 2007), St. Thomas, U.S. Virgin Islands, Dec. 12–14, 2007.

[C84] Pei-Jung Chung, Dirk Maiwald, Nicolai Czink, Christoph F. Mecklenbräuker, Bernard H. Fleury: "Determining the number of propagation paths from broadband MIMO measurements via bootstrapped likelihoods and the false discovery rate criterion — Part I: Methodology," in Proc. IEEE 2nd International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP 2007), St. Thomas, U.S. Virgin Islands, Dec. 12–14, 2007.

[C83] Alexander Paier, Johan Karedal, Nicolai Czink, Helmut Hofstetter, Charlotte Dumard, Thomas Zemen, Fredrik Tufvesson, Andreas F. Molisch, Christoph F. Mecklenbräuker: "Car-to-car radio channel measurements at 5 GHz: Pathloss, power-delay prole, and delay-Doppler spectrum," in Proc. IEEE 4th International Symposium on Wireless Communication Systems (ISWCS 2007), Trondheim, Norway, Oct. 17–19, 2007.

[C82] Alexander Paier, Johan Karedal, Nicolai Czink, Helmut Hofstetter, Charlotte Dumard, Thomas Zemen, Fredrik Tufvesson, Andreas F. Molisch, Christoph F. Mecklenbräuker: "First results from car-to-car and car-to-infrastructure radio channel measurements at 5.2 GHz," in Proc. 18th Annual IEEE International Symposium on Personal, Indoor, and Mobile Radio Communications (PIMRC'07), Athens, Greece, Sep. 3–7, 2007.

[C81] Olaf Albert and Christoph F. Mecklenbräuker: "An 8–bit programmable fine delay circuit with step size 65ps for an ultrawideband pulse position modulation testbed," in Proc. EUSIPCO 2007, Poznan, Poland, Sep. 3–7, 2007.

[C80] Giulio Coluccia, Giorgio Taricco, Christoph F. Mecklenbräuker: "Performance of an Optimum Receiver Scheme based on Pilot-Symbol Channel Estimation over a Measured MIMO Channel," in Proc. 8th IEEE Workshop on Signal Processing Advances in Wireless Communications, Helsinki, Finland, Jun. 17–20, 2007.

[C79] Ari Hottinen, Yi Hong, Emanuele Viterbo, Christian Mehlführer, Christoph F. Mecklenbräuker: "A comparison of high rate algebraic

and non-orthogonal STBCs," in Proc. ITG/IEEE Workshop on Smart Antennas, Vienna, Austria, Feb. 26–27, 2007.

[C78] Markus Rupp, Christoph F. Mecklenbräuker: "Asymptotic Behavior of Extended Alamouti Schemes for Large Number of Receive Antennas," in Proc. 40th Asilomar Conference on Signals, Systems, and Computing, Pacific Grove (CA), USA, October 29–November 1, 2006.

[C77] Zolfa Zeinalpour-Yazdi, Masoumeh Nasiri-Kenari, Joachim Wehinger, Christoph F. Mecklenbräuker: "Upper Bounds on the Ergodic and Outage Capacities of Relay Networks Using UWB Links," in Proc. 40th Asilomar Conference on Signals, Systems, and Computing (ACSSC'06), pp. 646–650, Pacific Grove (CA), USA, October 29–November 1, 2006.

[C76] Nicolai Czink, Christoph F. Mecklenbräuker, Giovanni Del Galdo: *A Novel Automatic Cluster Tracking Algorithm*, in Proc. 17th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'06), Helsinki, Finland, Sep. 11–14, 2006.

[C75] Thomas Zemen, Bernard H. Fleury, Christoph F. Mecklenbräuker: *Low-Complexity Time-Variant Channel Prediction Using Discrete Prolate Spheroidal Sequences*, in Proc. EUSIPCO 2006, Florence, Italy, Sep. 4–6, 2006.

[C74] Thomas Zemen, Christoph F. Mecklenbräuker, Bernard H. Fleury: *Time-Variant Channel Prediction using Time-Concentrated and Band-Limited Sequences*, in Proc. IEEE International Conference on Communications (ICC 2006), Istanbul, Turkey, Jun. 11–15, 2006.

[C73] Nicolai Czink, Giovanni Del Galdo, Xuefeng Yin, Christoph F. Mecklenbräuker: *A Novel Environment Characterisation Metric for Clustered MIMO Channels Used to Validate a SAGE Parameter Estimator*, in Proc. IST Mobile Summit 2006, Mykonos, Greece, Jun. 4–6, 2006.

[C72] Klemens Freudenthaler, Joachim Wehinger, Christoph F. Mecklenbräuker, Andreas Springer: *Update Rate of Channel Estimation for UMTS-HSDPA in Time-Varying Channels*, in Proc. Vehicular Technology Conference (VTC 2006 Spring), Melbourne, Australia, May 7–10, 2006.

[C71] Pei-Jung Chung, Nicolai Czink, Christoph F. Mecklenbräuker: Model Order Selection for Multipath MIMO Channels using the Benjamini-Hochberg Procedure, in Proc. ITG/IEEE Workshop on Smart Antennas (WSA 2006), Reisensburg, Germany, Mar. 13–14, 2006.

[C70] Christian Mehlführer, Christoph F. Mecklenbräuker, Markus Rupp: *On Reduced-Complexity Variants to the Double Space-Time Transmit Diversity Proposal for UMTS,* in Proc. Second International Symposium on Communications, Control and Signal Processing (ISCCSP 2006), Marrakesh, Marocco, Mar. 13–15, 2006.

[C69] Thomas Zemen, Christoph F. Mecklenbräuker, Bernard H. Fleury: *Time-Variant Channel Prediction using Time-Concentrated and Band-Limited Sequences — Analytic Results*, in Proc. 5th Vienna Symposium in Mathematical Modelling (MATHMOD), Vienna, Austria, Feb. 8–10, 2006 (**invited**).

[C68] Pei-Jung Chung, Johann F. Böhme, Christoph F. Mecklenbräuker, Alfred O. Hero: *Multiple Signal Detection Using the Benjamini-Hochberg Procedure*, in Proc. IEEE 1st International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP 2005), Puerto Vallarta, Jalisco State, Mexico, Dec. 13–15, 2005.

[C67] Christian Mehlführer, Markus Rupp, Christoph F. Mecklenbräuker: *Double Space-Time Transmit Diversity with Subgroup Rate Control for UMTS: Throughput Analysis*, in Proc. 39th Asilomar Conference on Signals, Systems, and Computing, Pacific Grove (CA), USA, November 2005.

[C66] Jaouhar Ayadi, Istvan Zsolt Kovacs, Christoph F. Mecklenbräuker, John Farserotu: "*Design and Performance Analysis of an Impulse Radio Ultrawideband Multiuser Transmission Scheme for Wireless Personal Area Networks Applications*," in Proc. EUSIPCO 2005, Antalya, Turkey, Sep.2005.

[C65] Pei-Jung Chung, Johann F. Böhme, Alfred O. Hero, Christoph F. Mecklenbräuker: *On Signal Detection Using the Benjamini-Hochberg Procedure*, in Proc. IEEE Workshop on Statistical Signal Processing (SSP 2005), Bordeaux, France, Jul. 17–20, 2005.

[C64] Klemens Freudenthaler, Florian Kaltenberger, Stefan Geirhofer, Steffen Paul, Joachim Wehinger, Christoph F. Mecklenbräuker, Andreas Springer, Jens Berkmann: "*Throughput Simulations for a UMTS High Speed Downlink Packet Access LMMSE Equalizer*," in Proc. IST Mobile Summit, Dresden, Germany, Jun. 19–21, 2005.

[C63] Florian Kaltenberger, Klemens Freudenthaler, Steffen Paul, Joachim Wehinger, Christoph Mecklenbräuker, Andreas Springer, Jens Berkmann: "*Throughput Enhancement by Cancellation of Synchronization and Pilot Channel for UMTS High Speed Downlink Packet Access*," in Proc. SPAWC 2005, New York City (NY), USA, June 2005.

[C62] Klemens Freudenthaler, Florian Kaltenberger, Steffen Paul, Christoph F. Mecklenbräuker, Mario Huemer, Andreas Springer: "*Cancellation of Interference from Synchronization and Pilot Channels on High Speed Downlink Shared Channel in UMTS*," in Proc. 11th European Wireless Conference 2005 (EW 2005), Nicosia, Cyprus, Apr. 10–13, 2005.

[C61] Steffen Paul and Christoph F. Mecklenbräuker: "A novel pilot pattern definition for the downlink of UMTS with four transmit antennas", in Proc. ITG/IEEE Workshop on Smart Antennas, Duisburg, Germany, Apr. 4–5, 2005.

[C60] Marc Realp, Ana I. Pérez-Neira and C.F. Mecklenbräuker: "*A Cross-Layer Approach to Multi-User Diversity in Heterogeneous Wireless Systems*, in Proc. IEEE International Conference on Communications (ICC 2005), Seoul, Korea, May 16–20, 2005.

[C59] Christoph F. Mecklenbräuker and Steffen Paul: *On Estimating the SNR from BPSK Signals*, in Proc. IEEE ICASSP 2005, Philadelphia, PA, USA, Mar. 19–23, 2005.

[C57] Markus Rupp, Christoph F. Mecklenbräuker and Gerhard Gritsch: *On Modal Subspaces of Extended Alamouti Space-Time Block Codes*, in Proc. 38th Asilomar Conference on Signals, Systems, and Computers, Pacific Grove (CA), USA, Nov. 7–10, 2004.

[C57] Thomas Zemen, Christoph F. Mecklenbräuker, Joachim Wehinger and Ralf R. Müller: *Iterative Multi-User Decoding with Time-Variant Channel Estimation for MC-CDMA*, in IEE Proc. 5th Int. Conf. on 3G Mobile Communication Technologies (3G 2004), London, UK, Oct. 18–20, 2004 (**invited**).

[C56] Joachim Wehinger and Christoph F. Mecklenbräuker: *Space-Time UMTS-FDD Receiver with Weighted Interference Cancellation*, in Proc. EUSIPCO 2004, Vienna, Austria.

[C55] Pei-Jung Chung, Johann F. Böhme, Alfred O. Hero, Christoph F. Mecklenbräuker: *Signal Detection using a Multiple Hypothesis Test*, in Proc. 3rd IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM 2004), Sitges, Spain, Jul. 18–21, 2004.

[C54] Christoph F. Mecklenbräuker, Markus Rupp, and Gerhard Gritsch: "*On Mutual Information and Outage for Extended Alamouti Space-Time Block Codes*", in Proc. 3rd IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM 2004), Sitges, Spain, Jul. 18–21, 2004.

[C53] Joachim Wehinger, Christoph F. Mecklenbräuker, Steffen Paul, Florian Kaltenberger: "*Two-stage Space-Time Receiver for UMTS Frequency Division Duplex*, in Proc. ITG/IEEE Workshop on Smart Antennas, Munich, Germany, Mar. 18–19, 2004.

[C52] J. López-Vicario, Christoph F. Mecklenbräuker, C. Antón-Haro, "*Reduced-complexity Methods for Throughput Maximization in MIMO Channels*", in Proc. IEEE International Conference on Communications (ICC 2004), Paris, France, Jun. 20–24, 2004.

[C51] Joachim Wehinger, Christoph F. Mecklenbräuker, Ralf R. Müller, Thomas Zemen, Maja Lončar: "*On Channel Estimators for Iterative CDMA Multiuser Receivers in Flat Rayleigh Fading*", in Proc. IEEE International Conference on Communications (ICC 2004), Paris, France, Jun. 20–24, 2004.

[C50] Kleanthis N. Mokios, Nicholas D. Sidiropoulos, Marius Pesavento, Christoph F. Mecklenbräuker: "*On* 3-D *Harmonic Retrieval for Wireless Channel Sounding*," in Proc. IEEE ICASSP 2004, Montreal, Canada, May 17–21, 2004.

[C49] Joachim Wehinger, Vikram R. Anreddy, Christoph F. Mecklenbräuker, Steffen Paul, Carles Antón: "*Adaptive Minimum Bit Error Rate Space-Time Rake Receiver for the Uplink of UMTS Frequency Division Duplex Mode*", in Proc. IEEE Int. Symp. Signal Processing and Information Theory (ISSPIT 2003), Darmstadt, Germany, Dec. 14–17, 2003

[C48] Marius Pesavento, Christoph F. Mecklenbräuker, Johann F. Böhme: MD-harmonic retrieval: exploiting algebraic structure in parameter estimation and association, in Proc. IEEE Workshop on Statistical Signal Processing (SSP 2003), St. Louis, USA, Sep. 28, – Oct. 1, 2003.

[C47] Marius Pesavento, Christoph F. Mecklenbräuker, Johann F. Böhme: New results on almost-sure identifiabilty of 2D-harmonic retrieval, in Proc. IEEE Workshop on Statistical Signal Processing (SSP 2003), St. Louis, USA, Sep. 28, – Oct. 1, 2003.

[C46] Thomas Zemen and Christoph F. Mecklenbräuker, *Equalization of Time Varying Channels for MC-CDMA via Finite Prolate Spheroidal Wave Functions* , in Proc. 37th Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, CA, USA, Nov. 9–12, 2003. (invited)

[C45] Thomas Zemen, Maja Loncar, Joachim Wehinger, Christoph F. Mecklenbräuker and Ralf R. Müller: *Improved Channel Estimation for*

Iterative Receivers, IEEE GLOBECOM 2003, San Francisco, USA, Dec. 1–5, 2003.

[C44] Markus Rupp, Christoph F. Mecklenbräuker and Gerhard Gritsch: *High Diversity with Simple Space Time Block Codes and Linear Receivers*, in Proc. IEEE GLOBECOM 2003, San Francisco, USA, Dec. 1–5, 2003.

[C43] Olaf Albert and Christoph F. Mecklenbräuker, *Low-Power Ultra-Wideband Radio Testbed For Short-Range Data Transmission*, in Proc. 2003 Int. Workshop on Ultra Wideband Systems (IWUWBS), Oulu, Finland, Jun. 2–4, 2003.

[C42] Marius Pesavento, Christoph F. Mecklenbräuker and Johann F. Böhme, *Multi-dimensional harmonic estimation using K-D RARE in application to MIMO channel estimation*, in Proc. IEEE ICASSP 2003, Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 4, pp. IV-644—IV-647, Hongkong, China, Apr. 6–10, 2003.

[C41] Marius Pesavento, Christoph F. Mecklenbräuker and Johann F. Böhme, *Tree-structured multi-dimensional RARE for MIMO channel estimation*, COST–273 Meeting # 6, Temporary Document TD(03)020, Barcelona, Spain, Jan. 15–17, 2003.

[C40] Thomas Zemen, Joachim Wehinger, Christoph F. Mecklenbräuker and Ralf Müller: "*Iterative Receiver with Channel Estimation for MC-CDMA*", in Proc. IEEE International Conference on Communications (ICC 2003), Anchorage, Alaska, 2003.

[C39] Markus Rupp and Christoph F. Mecklenbräuker: "*Improving Transmission by MIMO Channel Structuring*", in Proc. IEEE International Conference on Communications (ICC 2003), Anchorage, Alaska, 2003.

[C38] Lei Jin, Zoran Salcic and Christoph F. Mecklenbräuker: "*Simulation Model of the LS-DRMTA Adaptive Algorithm for Multiple Antenna System for DS-CDMA*", in Proc. 8th IEEE International Conference on Communication Systems (ICCS 2002), Singapore, Nov. 25–28, 2002.

[C37] Zoran Salcic and Christoph F. Mecklenbräuker: "*Software Radio — Architectural Requirements, Research and Development Challenges*", in Proc. 8th IEEE International Conference on Communication Systems (ICCS 2002), Singapore, Nov. 25–28, 2002.

[C36] Joachim Wehinger, Ralf R. Müller, Maja Lončar and Christoph F. Mecklenbräuker: "*Performance of Iterative CDMA Receivers with Channel Estimatimation in Multipath Environments*", in Proc. 36th

Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, CA, USA, Nov. 2–6, 2002.

[C35] Marius Pesavento, Christoph F. Mecklenbräuker and Johann F. Böhme: "*Double-directional radio channel estimation using M-D RARE*", in Proc. 36th Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, CA, USA, Nov. 2–6, 2002.

[C34] Markus Rupp and Christoph F. Mecklenbräuker: "*On Extended Alamouti Schemes for Space-Time Coding*", in Proc. WPMC'02, Wireless Personal Multimedia Communications, Honolulu, Hawaii, Oct. 27–30, 2002 (**invited**).

[C33] Maja Lončar, Joachim Wehinger, Ralf R. Müller and Christoph F. Mecklenbräuker: "*Iterative Equalization Using Soft-Decoder Feedback for MIMO Systems in Frequency-Selective Fading*", in Proc. XXVII-th General Assembly of the International Union of Radio Science, AP-S URSI, Maastricht, Netherlands, Aug. 17–24, 2002.

[C32] Maja Lončar, Christoph F. Mecklenbräuker and Ralf R. Müller: "*Reduction of Co-Channel Interference in GSM by Joint Channel and Data Estimation*", in Proc. EW–2002, European Wireless 2002, Florence, Italy, Feb. 26–28, 2002.

[C31] Maja Lončar, Christoph F. Mecklenbräuker and Ralf R. Müller: "*Joint Channel and Data Estimation for Asynchronous GSM Users*", in Proc. IEE Tech. Sem. MIMO Communication Systems: From Concept to Implementation, London, UK, Dec. 12, 2001.

[C30] Ernst Bonek, Helmut Hofstetter, Christoph F. Mecklenbräuker and Martin Steinbauer: "*Double-directional Superresolution Radio Channel Measurements*", in Proc. 39th Annual Allerton Conference on Communication, Control, and Computing, Monticello, IL, USA, Oct. 3, 2001.

[C29] Helmut Hofstetter, Martin Steinbauer and Christoph F. Mecklenbräuker: "*Double-directional radio channel estimation at 2GHz for high-speed vehicular mobiles - Experimental results*", in Proc. WPMC'01, 4th International Symposium on Wireless Personal Multimedia Communications, Aalborg, Denmark, Sep. 9–12, 2001.

[C28] Ernst Bonek, Martin Steinbauer, Helmut Hofstetter and Christoph F. Mecklenbräuker: "*Double-directional Radio Channel Measurements — What We Can Derive from Them*", in Proc. ISSSE 01, International Symposium on Signals, Systems, and Electronics, Tokyo, Japan, Jul. 24–27, 2001.

[C27] Christoph F. Mecklenbräuker and Alex B. Gershman: "*Broadband maximum likelihood estimation of shallow ocean parameters using shipping noise*", in Proc. IEEE ICASSP 2000, Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 5, pp. 3105–3108, Salt Lake City, May 7–11, 2001.

[C26] Christoph F. Mecklenbräuker, Ralf R. Müller, Ana I. Pérez-Neira and Manfred Lenger: "*On Simplified Space-Time Receiver Structures for GSM*", in Proc. EPMCC 2001, 4th European Personal Mobile Communications Conference, Vienna, Feb. 20–22, 2001.

[C25] Fariba Raji, Gerald Ostermayer, Friedrich Kemler, Christoph F. Mecklenbräuker, Peter Slanina, Thomas Gruhn, Frank Wegner and Georgios Papoutsis: "*Scheduling Performance for UTRA TDD Mode*", in Proc. EPMCC 2001, 4th European Personal Mobile Communications Conference, Vienna, Feb. 20–22, 2001.

[C24] Mugdim Bublin, Georg Diernhofer, Christoph F. Mecklenbräuker, Toplica Pacic, Jens Plogsties and Peter Slanina: "*Simulation of smart antennas in 3G mobile systems*", in Proc. EPMCC 2001, 4th European Personal Mobile Communications Conference, Vienna, Feb. 20–22, 2001.

[C23] Martin Haardt, Christoph F. Mecklenbräuker, Marius Vollmer: "*Adaptive Antennas for Third Generation Mobile Radio Systems*", in Proc. VDE World Microtechnologies Congress (MICRO.tec 2000), Expo 2000, Hannover, Vol. 2, pp. 201–206, Sep. 25–27, 2000.

[C22] Martin Haardt and Christoph F. Mecklenbräuker: "*Estimation of Interference Covariance Matrices for Downlink Beamforming in TDD Cellular Systems*", in Proc. ICT-2000, Vol. 2, pp. 780–784, Acapulco, Mexico, May 22–25, 2000. ISBN 968-36-7762-2.

[C21] Gerald Ostermayer, Peter Slanina, Christian Hölzl, Christoph F. Mecklenbräuker, Fariba Raji and Thomas Stadler: "*Scheduling Algorithm for UTRA TDD Mode*", in Proc. AFCEA/IEEE EuroComm 2000, pp. 212–216, Munich, Germany, May 17–19, 2000.

[C20] Peter Slanina, Fariba Raji, Christoph F. Mecklenbräuker, Christian Hölzl, Gerald Ostermayer, Thomas Stadler and Thomas Gruhn: "*Throughput of Hybrid ARQ Types for UTRA TDD Mode*", in Proc. AFCEA/IEEE EuroComm 2000, pp. 11–15, Munich, Germany, May 17–19, 2000.

[C19] Peter Slanina, Fariba Raji, Christoph F. Mecklenbräuker, Christian Hölzl, Gerald Ostermayer, Thomas Stadler, Enric Mitjana: "*Through-*

put of Hybrid ARQ Types for UTRA TDD", in Proc. WCC-2000, World Computer Congress, Beijing, China, Aug. 25–28, 2000.

[C18] Peter Slanina, Fariba Raji, Christoph F. Mecklenbräuker, Christian Hölzl, Gerald Ostermayer, Thomas Stadler and Enric Mitjana: "*Performance of Hybrid ARQ Types for TDD Mode*", in Proc. Wireless'99 together with ITG-Fachtagung "'Mobile Kommunikation"', Munich, Oct. 6–8, 1999.

[C17] Peter Slanina, Fariba Raji, Christoph F. Mecklenbräuker, Christian Hölzl, Gerald Ostermayer and Thomas Stadler: "*Performance of Hybrid ARQ Types for TDD Mode*", in Proc. AMOS'99, 4th ACTS Mobile Communications Summit, Sorrento, Italy, Jun. 9–11, 1999.

[C16] Christoph F. Mecklenbräuker and Peter Gerstoft: "*Uncertainties in geoacoustic parameter estimates*", in Proc. ICTCA'99, Int'l Conf. on Theoretical and Computational Acoustics, Special Issue of JCA, Session on Inversion, Trieste, Italy, May 10–14, 1999 (**invited**).

[C15] Christoph F. Mecklenbräuker, Peter Gerstoft, Andreas Waldhorst and Georgios Haralabus: "*Matched Field Processing using Multipole Expansion*", in Proc. 4th European Conference on Underwater Acoustics (4ECUA), Vol. 1, pp. 15–20, Rome, Italy, Sep. 21-25, 1998.

[C14] Donald Gingras, Peter Gerstoft, Neil Gerr and Christoph F. Mecklenbräuker: "*Electromagnetic Matched Field Processing for Source Localization*", in Proc. IEEE ICASSP 1997, Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 1, pp. 479–482, Munich, Germany, Apr. 21-24, 1997.

[C13] Alex B. Gershman, Christoph F. Mecklenbräuker and Johann F. Böhme: "*Direction Finding with Imperfect Wavefront Coherence: A Matrix Fitting Approach Using Genetic Algorithm*", in Proc. IEEE ICASSP 1997, Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 1, pp. 519–522, Munich, Germany, Apr. 21-24, 1997.

[C12] Christoph F. Mecklenbräuker, Peter Gerstoft, Pei-Jung Chung and Johann F. Böhme: "*Generalized Likelihood Ratio Test for Selecting a Geo-acoustic Environmental Model*", in Proc. IEEE ICASSP 1997, Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 1, pp. 463–466, Munich, Apr. 21-24, 1997.

[C11] Dima V. Sidorovich, Christoph F. Mecklenbräuker and Johann F. Böhme: "*Sequential Test and Parameter Estimation for Array Processing of Seismic Data*", in Proc. SSAP, Statistical Signal– and Array Processing, Corfu, Greece, Jun. 24-26, 1996.

[C10] Christoph F. Mecklenbräuker and Peter Gerstoft: "*Hypothesis Testing for Acoustic Environmental Models using Likelihood Ratio*", in Proc. 3rd European Conference on Underwater Acoustics (3ECUA), Vol. 1, pp. 465–470, Heraklion, Greece, Jun. 24-28, 1996.

[C9] Christoph F. Mecklenbräuker, Masoud Geravanchizadeh and Johann F. Böhme: "*Broadband Matched Field Processing using Robust Prewhitening and Multiple Window Techniques*", in Proc. IEEE ICASSP 1996, Int. Conf. on Acoustics, Speech and Signal Processing, pp. 3082–3085, Atlanta, USA, May 1996.

[C8] Alex B. Gershman, Christoph F. Mecklenbräuker and Johann F. Böhme: "*ML-Estimation of Environmental Parameters in Shallow Ocean Using Unknown Broadband Sources*", in Proc. IEEE ICNNSP'95, Int. Conf. Neural Networks and Signal Processing, Vol. 2, pp. 1091–1094, Nanjing, China, Dec. 1995 (**invited**).

[C7] Christoph F. Mecklenbräuker, Martin Clasen and Johann F. Böhme: "*Parametric Approach to Environmental Noise Classification in Shallow Ocean*", in Proc. WCU'95, World Congress on Ultrasonics, pp. 611–614, Berlin, Germany, Sep. 3-7, 1995.

[C6] George V. Serebryakov, Dima V. Sidorovitch and Christoph F. Mecklenbräuker: "*Coherence Effects of the Interference on the Performance of Optimum/Adaptive Beamformer*", in Proc. IEEE ICASSP 1995, Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 5, pp. 3631-3634, Detroit, USA, May 6-9, 1995.

[C5] Christoph F. Mecklenbräuker, Dirk Maiwald and Johann F. Böhme: "*Matched Field Processing in Shallow Ocean, Identification of Multimode Propagation*", in Proc. IEEE ICASSP 1995, Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 5, pp. 3123–3126, Detroit, USA, May 6-9, 1995.

[C4] Christoph F. Mecklenbräuker and Johann F. Böhme: "*Matched Field Processing in Shallow Ocean, Identification of Multimode Propagation*", in Proc. 2nd European Conference on Underwater Acoustics (2ECUA), Vol. 2, pp. 611–616, Copenhagen, Denmark, Jul. 4-8, 1994 (**invited**).

[C3] Christoph F. Mecklenbräuker and Johann F. Böhme: "*Matched Field Processing in Shallow Ocean, Signal Arrival Identification using EM Algorithm*", in Proc. IEEE ICASSP 1994, Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 2, pp. II-337 – II-340, Adelaide, Australia, Apr. 19-22, 1994.

[C2] Ali-Reza Baghai-Wadji, Heinz Reichinger, Herbert Zidek and Christoph F. Mecklenbräuker: "*Green's Function Applications in SAW Devices*", in Proc. IEEE Ultrasonics Symposium, Walt Disney World Village, Lake Buena Vista, Florida, USA, pp. 11–20, Dec. 8-11, 1991 (**invited**).

[C1] Ali-Reza Baghai-Wadji and Christoph F. Mecklenbräuker: "*Propagation of Piezoelectric Waves in Singly and Doubly Periodic Metallic Gratings*", in Proc. EFTF 91, 5th European Frequency and Time Forum, Besançon, France, pp. 66–72, Mar. 1991.

Presentations and Invited Talks

[T46] Shrief Rizkalla, Christoph F. Mecklenbräuker, Ralf R. M¨ller: Direction of Arrival Estimation using Dual LASSO with Reed-Solomon Error Evaluation Algorithms, Information Theory and Applications Workshop (ITA 2018), San Diego (CA), USA, Feb. 15, 2018.

[T45] Peter Gerstoft, Christoph Mecklenbräuker, Aggeliki Xenaki, Santosh Nannuru: Multi Snapshot Sparse Bayesian Learning for DOA Estimation, Guest Lecture, FAU Erlangen–Nürnberg, Germany, June 12, 2017 (invited).

[T44] Peter Gerstoft, Christoph Mecklenbräuker, Aggeliki Xenaki, Santosh Nannuru: Multisnapshot Sparse Bayesian Learning for DOA, Poster Presentation at IEEE ICASSP 2017 of IEEE Signal Processing Letters paper [J50], New Orleans (LA), USA, Mar. 7, 2017.

[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. Mecklenbräuker: Bayesian sequential sparse sampling, 21st International Congress on Acoustics (ICA 2013), Montreal, Canada, June 2–7, 2013.

[T40] Martin Böck, Andreas Kugi, Christoph F. Mecklenbräuker: 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. Mecklenbräuker, 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. Mecklenbräuker, Bujar Krasniqi: Power Efficiency of Partial Frequency Reuse for Cellular Networks, University of Southern California (USC), Los Angeles, Aug. 17, 2011.

[T37] Christoph F. Mecklenbräuker, Florian Xaver, Gerald Matz, Peter Gerstoft: Distributed Wave-Field Parameter Estimation Using a Particle Filter, ETH Zurich, Jun. 17, 2011.

[T36] Christoph F. Mecklenbräuker, Florian Xaver, Gerald Matz, Peter Gerstoft: Distributed Wave-Field Parameter Estimation Using a Particle Filter, TU Darmstadt, Jun. 8, 2011.

[T35] Christoph F. Mecklenbräuker: 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. Mecklenbräuker, 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. Mecklenbräuker, 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. Mecklenbräuker, 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.

[T29] Christoph F. Mecklenbräuker, Pei-Jung Chung, Dirk Maiwald, Nicolai Czink, Bernard H. Fleury: "*Model Identification for Wireless Propagation with Control of the False Discovery Rate*," presented at Advanced Lectures in Wireless Communications, Technische Universität München, Germany, Apr. 8, 2008.

[T28] Christoph Mecklenbräuker, Maxime Guillaud, Roland Tresch and Marius Pesavento: "*MU-MIMO schemes in current standards for 3GPP Long Term Evolution, Wireless LAN, and WiMax*," presented at Multi-user MIMO Industry Course, Nokia Research Center, Helsinki, Finland, Nov. 16, 2007.

[T27] Christoph Mecklenbräuker, Giulio Coluccia, Giorgio Taricco, Christian Mehlführer and Sebastian Caban : "*MU-MIMO scheme performance evaluations using measured channels in specific environments*," presented at Multi-user MIMO Industry Course, Nokia Research Center, Helsinki, Finland, Nov. 16, 2007.

[T26] Christoph Mecklenbräuker, Pei-Jung Chung, Dirk Maiwald, Nicolai Czink, Bernard H. Fleury: Determining the Number of Propagation Paths from Broadband MIMO Measurements via the False Discovery Rate Criterion, presented at Chalmers University, Göteborg, Sweden, Oct. 25, 2007.

[T25] Christoph Mecklenbräuker, Alexander Paier, Johan Karedal, Nicolai Czink, Helmut Hofstetter, Charlotte Dumard, Thomas Zemen, Fredrik Tufvesson, Andreas F. Molisch: "*Challenges in vehicular communications for impactive systems — Dynamics, Doppler, and Delay*," presented at Joint Workshop on Coding and Communications (JWCC 2007), Dürnstein, Austria, Oct. 16, 2007.

[T24] Christoph Mecklenbräuker: "*Das Handy frisst den iPod u.v.m.*," presented at TU Wien, Austria, Jun. 14, 2007.

[T23] Christoph Mecklenbräuker and Olaf Albert: "*An Impulse Radio Demonstrator for 4-PPM*," presented at Universität Bremen, Bremen, Germany, May 30, 2007.

[T22] Olaf Albert and Christoph F. Mecklenbräuker: "*An 8-bit programmable fine delay circuit with step size 65ps for an ultrawideband*

pulse position modulation testbed," presented at the IEEE Austria Section's UWB Forum on Sensing and Communication, Johannes Kepler Universität Linz, Linz, Austria, Mar. 14, 2007.

[T21] Christoph Mecklenbräuker: "*An Impulse Radio Ultra Wideband Multiuser Transmission Scheme for Wireless Personal Area Networks Applications*, UWB Workshop 2005, hosted by Linz Center of Competence for Mechatronics (LCM), Linz, Austria, Mar. 2, 2005.

[T20] Olaf Albert and Christoph Mecklenbräuker: "*Practical Aspects of the UWB Testbed Implementation*," UWB Workshop 2004, hosted by Siemens PSE PRO RCD, Vienna, Austria, Oct. 20, 2004.

[T19] Christoph Mecklenbräuker and Olaf Albert: "*Early-Late Synchroniser: Simulation Results and Comparison with the Testbed*," UWB Workshop 2004, hosted Siemens PSE PRO RCD, Vienna, Austria, Oct. 20, 2004.

[T18] Olaf Albert and Christoph F. Mecklenbräuker: "*UWB Channel Measurements in Linz*", Centro Technologia Telecommunication Catalunya (CTTC), Barcelona, Spain, Jul. 27, 2004.

[T17] Olaf Albert and Christoph F. Mecklenbräuker: "*Testbed for Low-Power Short-Range UWB Transmission*", Centro Technologia Telecommunication Catalunya (CTTC), Barcelona, Spain, Jul. 27, 2004.

[T16] Christoph F. Mecklenbräuker and Steffen Paul: "*SNR Estimation from BPSK and QPSK Signals*", Arbeitsgemeinschaft Kommunikation im Kleinwalsertal (KiK 2004), Riezlern, Austria, Jul. 12, 2004.

[T15] Christoph F. Mecklenbräuker: "*Throughput simulation for UMTS radio access networks with smart antennas*", Universität Rostock, Rostock, Germany, Feb. 17, 2004.

[T14] Christoph F. Mecklenbräuker: "*Throughput simulation for UMTS radio access networks with smart antennas*", Technische Universität Darmstadt, Darmstadt, Germany, Dec. 18, 2003.

[T13] Marius Pesavento, Christoph F. Mecklenbräuker and Johann F. Böhme: "*Multi-dimensional Rank Reduction Estimator for Parametric MIMO Channel Models*", Eidgenössische Technische Hochschule, Zurich, Switzerland, Jun. 26, 2003.

[T12] Christoph F. Mecklenbräuker: "*Low-Power Testbed for Short-Range Data Transmission via Ultra-Wideband Radio Pulses*", Johannes Kepler Universität Linz, Linz, Apr. 14, 2002.

[T11] Christoph F. Mecklenbräuker: "*Ultra Wideband Radio*", ftw. member tutorial *Wireless Communications*, Vienna, Dec. 5, 2002.

[T10] Christoph F. Mecklenbräuker and Markus Rupp: "*Über Erweiterungen des Alamouti-Schemas für die Space-Time Codierung*", Seminar *Netzwerktheorie und Signalverarbeitung*, Technische Universität München, Munich, Germany, Jun. 5, 2002.

[T9] Christoph F. Mecklenbräuker and Ralf R. Müller: "*The Wireless Multiple-Input, Multiple-Output Channel: Measurements, Double-Directional Parameters, and Capacity*", Int. Symp. Advanced Radio Technologies (ISART'02), ITS/NIST, Boulder (CO), USA, Mar. 4–6, 2002.

[T8] Christoph F. Mecklenbräuker: "*Channel Estimation for Antenna Arrays*", ftw. member tutorial *Wireless Communications*, Vienna, Jan. 30, 2002.

[T7] Christoph F. Mecklenbräuker: "*Smart Antennas*", Future Telecommunications Workshop, Wiener Telekom-Tag'01, Vienna, Nov. 15, 2001.

[T6] Alex B. Gershman, Christoph F. Mecklenbräuker and Johann F. Böhme: "*Direction Finding with Imperfect Wavefront Coherence: A Matrix Fitting Approach Using Genetic Algorithm*", Arbeitsgemeinschaft Kommunikation im Klein-Walsertal (KiK'2001), Riezlern, Austria, Jul. 31, 2001.

[T5] Martin Haardt, Christoph F. Mecklenbräuker and Marius Vollmer: "*Efficient Joint Space-Time Processing for UTRA TDD*", Diskussionssitzung "Systeme mit intelligenten Antennen" im Rahmen des ITG-Fokusprojekts "Mobilkommunikation", Ilmenau, Mar. 2001.

[T4] Alex B. Gershman, Christoph F. Mecklenbräuker and Johann F. Böhme: "*Matrix Fitting Approach to Direction of Arrival Estimation with Imperfect Spatial Coherence of Wavefronts*", INTAS Colloquium, Bochum, May 1996.

[T3] Christoph F. Mecklenbräuker, Alex B. Gershman and Johann F. Böhme: "*Estimation and Testing of Environmental Parameters in Shallow Ocean using Likelihood Functions*", INTAS Colloquium, Bochum, May 1996.

[T2] Christoph F. Mecklenbräuker: "*Modenfilterung mit einer Linearantenne im Flachwasser, Verarbeitung von Sonardaten*", ITG Fachausschuß 5.4: "Algorithmen für die Signalverarbeitung", Ilmenau, Germany, Mar. 1993.

[T1] Ali-Reza Baghai-Wadji and Christoph F. Mecklenbräuker: "*Greenfunktion und Elementfaktor bei periodischen piezoelektrischen Problemen*", Zweites Piezoelektrisches Kolloquium der Österreichischen Physikalischen Gesellschaft, Nagycenk, Hungary, Nov. 7-9, 1991.

Patent Applications

[P9] Shrief Rizkalla, Christoph F. Mecklenbräuker, Ralph Prestros: *Proximity integrated circuit card and method*. Application number: 16150859.3, Applicant: NXP B.V., 5656 AG Eindhoven, NL. Anmeldetag: Jan. 12, 2016. European Patent Application, EP 3 193 282 A1

eingereicht: 12.01.2016, erteilt: 19.07.2017.

[P8] Thomas Gruhn, Christoph F. Mecklenbräuker, Fariba Raji and Frank Wegner: "*Verfahren und Kommunikationssystem zum Übertragen von kodierten Datenpaketen*", Deutsches Patent– und Markenamt, Offenlegungsschrift DE 100 22 270 A1, Applicant: Siemens AG, D-80333 Munich, Anmeldetag: May 8, 2000. Equivalents: WO 01/86857 A1, "*Transmission of Encoded Data Packets with Determination of the Coding Through Explicit Signalling by the Receiver*".

[P7] Christoph F. Mecklenbräuker and Martin Haardt: "*Verfahren und Kommunikationssystem zur Schätzung einer Störungs-Kovarianzmatrix für die Abwärtsverbindung in zellularen Mobilfunknetzen mit adaptiven Antennen*", Deutsches Patent– und Markenamt, Offenlegungsschrift DE 100 25 287 A1, Applicant: Siemens AG, D-80333 Munich, Anmeldetag: May 22, 2000. Equivalents: WO 01/91324 A1, AU 6893901, "*Method and Communications System for Estimating an Error Covariance Matrix for the Downlink in Cellular Mobile Radio Telephone Networks with Adaptive Antennae*".

[P6] Thomas Gruhn, Christoph F. Mecklenbräuker, Fariba Raji, Frank Wegner: "*Verfahren zum Übertragen von Paketdateninformationen in einem Funk-Kommunikationssystem*", Deutsches Patent– und Markenamt, Offenlegungsschrift DE 100 07 602 A1, Anmeldetag: Feb. 18, 2000. Equivalents: WO 01/62021 A2, EP 1256242, US 2003/0053440 A1, "*Method for transmitting packet data information in a radio communication system*".

[P5] Martin Haardt, Christina Geßner, Gerald Ostermayer, Thomas Stadler, Peter Slanina, Christoph F. Mecklenbräuker, Toplica Pacic, Christian Hölzl: "*Verfahren zur Ressourcenzuteilung in einem Funk-Kommunikationssystem unter Verwendung adaptiver Antennen*", Deutsches Patent– und Markenamt, Offenlegungsschrift

DE 199 58 891 B4, Applicant: Siemens AG, D-80333 Munich, Anmeldetag: Dec. 7, 1999, Publication date: Jun. 21, 2001, Publication date of the patent grant: Apr. 22, 2010.

[P4] Jean-Michel Traynard, Thomas Gruhn, Frank Wegner, Jürgen Schindler, Armin Sitte, Fariba Raji, Christoph F. Mecklenbräuker and Peter Slanina, "*Verfahren zur Signalübertragung in einem Kanal zum willkürlichen Zugriff eines Funk-Kommunikationssystems*", Deutsches Patent– und Markenamt, Offenlegungsschrift DE 199 36 318 A1, Applicant: Siemens AG, D-80333 Munich, Anmeldetag: Aug. 2, 1999, Publication date: Mar. 15, 2001.

[P3] Christoph F. Mecklenbräuker and Jean-Michel Traynard, "*Übertragungsverfahren mit variabler Datenrate in einem RACH-Kanal eines Funk-Kommunikationssystems*", Deutsches Patent– und Markenamt, Offenlegungsschrift DE 199 11 712 A1, Applicant: Siemens AG, D-80333 Munich, Anmeldetag: Mar. 16, 1999, Publication date: Oct. 5, 2000, Equivalents: EP 1159793, WO 00/55990, "*Transmission method with variable data rate in a random access channel of a radio communication system*".

[P2] Christoph F. Mecklenbräuker and Peter Slanina, "*Stochastische Sendeleistungseinstellung in einem Kanal zum willkürlichen Zugriff eines Funk-Kommunikationssystems*", Deutsches Patent– und Markenamt, Patentschrift DE 199 18 371 C1, Patentinhaber: Siemens AG, D-80333 Munich, Anmeldetag: Apr. 22, 1999, Veröffentlichungstag der Patenterteilung: Nov. 2, 2000, Equivalents: EP 1169788, WO 00/65745, "*Stochastic regulation of transmitter power in a random access channel of a radio communication system*".

[P1] Erik Newton, David Randall, Christoph F. Mecklenbräuker, Martin Öttl, Christian Menzel, Michael Benz, Anja Klein, Armin Sitte, Thomas Ulrich, Reinhard Köhn, Jörn Krause, Jean-Michel Traynard and Enric Mitjana, "*Verfahren und Kommunikationssystem zur Übertragung von Daten einer Kombination mehrerer Dienste über gemeinsam genutzte physikalische Kanäle*", Deutsches Patent– und Markenamt, Offenlegungsschrift DE 198 55 194 A1, Applicant: Siemens AG, D-80333 Munich, Anmeldetag: Nov. 30, 1998, Publication date: Jun. 8, 2000, Equivalents: EP 1135892, WO 00/33601 A3, patent granted on Mar. 5, 2008. "*Communications method and system for transmitting data of several combined services via physical channels which are used in common*".

Contributions to COST action 273

[TD03020] Marius Pesavento, Christoph F. Mecklenbräuker, and Johann F. Böhme: "*Tree-structured multi-dimensional RARE for MIMO channel estimation*," COST-273 Temporary Document TD(03)-020, Barcelona, Spain, Jan. 15–17, 2003.

[TD02135] Helmut Hofstetter, Christoph F. Mecklenbräuker, Hermann Anegg, Ernst Bonek, Ralf R. Müller, and Harald Kunczier: "*The FTW wireless MIMO measurement campaign at 2GHz: documentation of the downloadable data sets*," COST-273 Temporary Document TD(02)-135, Lisboa, Portugal, Sep. 19–20, 2002.

Contributions to COST action 2100

[TD12037] Philipp K. Gentner, Geoff Hilton, Mark A. Beach, Christoph F. Mecklenbräuker: Characterisation of an UWB Antenna Array with Spacings Following a Geometric Progression, COST 2100 TD(10)12037, presented at 12th Management Committee Meeting, Bologna, Italy, November 23-25, 2010.

[TD12026] Erik Ström, Elisabeth Uhlemann, Christoph F. Mecklenbräuker: Performance Metrics for mobile-to-mobile communications, COST 2100 TD(10)12026, presented at 12th Management Committee Meeting, Bologna, Italy, November 23-25, 2010.

[TD11045] Philipp K. Gentner, Geoff Hilton, Mark A. Beach, C. F. Mecklenbräuker: Analysis of ultra-wideband linear antenna arrays, COST 2100 TD(10)11045, presented at 11th Management Committee Meeting, Aalborg, Denmark, June 2-4, 2010.

[TD11022] Bujar Krasniqi, Martin Wolkerstorfer, Christian Mehlführer, Christoph F. Mecklenbräuker: Weighted Sum-Rate Maximization for Two Users in Partial Frequency Reuse Cellular Networks, COST 2100 TD(10)11022, presented at 11th Management Committee Meeting, Aalborg, Denmark, June 2-4, 2010.

[TD10034] Philipp K. Gentner, Wolfgang Gartner, Geoff Hilton, Mark A. Beach, Christoph F. Mecklenbräuker: Towards an Hardware Implementation of Ultra-Wideband Beamforming, COST 2100 TD(10)034, presented at 10th Management Committee Meeting, Athens, Greece, February 3-5, 2010.

[TD10015] Laura Bernadó, Thomas Zemen, Johan Karedal, Alexander Paier, Andreas Thiel, Oliver Klemp, Nicolai Czink, Fredrik Tufvesson, Andreas F. Molisch, Christoph F. Mecklenbräuker: Multi-Dimensional

K-Factor Analysis for V2V Radio Channels in Open Sub-urban Street Crossings, COST 2100 TD(10)015, presented at 10th Management Committee Meeting, Athens, Greece, February 3-5, 2010.

[TD09973] Carolina Reyes, Thibault Hilaire, C.F. Mecklenbräuker: Distributed Projection Approximation Subspace Tracking Based on Consensus Propagation, COST 2100 TD(09)973, presented at 9th Management Committee Meeting, Vienna, Austria, September 28-30, 2009.

[TD 09947] Philipp K. Gentner, Christoph F. Mecklenbräuker: For a beamforming UWB Antenna, COST 2100 TD(09)947, presented at 9th Management Committee Meeting, Vienna, Austria, September 28-30, 2009.

[TD09936] Gregor Lasser, C.F. Mecklenbräuker: Channel Model for Tyre Pressure Monitoring Systems (TPMS), COST 2100 TD(09)936, presented at 9th Management Committee Meeting, Vienna, Austria, September 28-30, 2009.

[TD09928] Alexander Paier, Laura Bernadö, Johan Karedal, Oliver Klemp, Andreas Kwoczek, Fredrik Tufvesson, Lund Andreas Thiel, Yi Zhou, Nicolai Czink, Thomas Zemen, Andreas Molisch, Christoph F. Mecklenbräuker: Overview of Vehicle-to-Vehicle Radio Channel Measurements for Collision Avoidance Applications, COST 2100 TD(09)928, presented at 9th Management Committee Meeting, Vienna, Austria, September 28-30, 2009.

[TD09865] Ayse Adalan, Holger Arthaber, Christoph F. Mecklenbräuker: On the Potential of IEEE 802.15.4a for Use in Car Safety and Healthcare Applications, COST 2100 TD(09)865, presented at 8th Management Committee Meeting, Valencia, Spain, May 18–19, 2009.

[TD09801] Bujar Krasniqi, Martin Wrulich, Christoph Mecklenbräuker: Network-Load Dependent Partial Frequency Reuse for LTE, COST 2100 TD(09)801, presented at 8th Management Committee Meeting, Valencia, Spain, May 18–19, 2009.

[TD09751] Alexander Paier, Thomas Zemen, Johan Karedal, Nicolai Czink, Charlotte Dumard, Fredrik Tufvesson, Christoph F. Mecklenbräuker, Andreas F. Molisch: Spatial Diversity and Spatial Correlation Evaluation of Measured Vehicle-to-Vehicle Radio Channels at 5.2 GHz, COST 2100 TD(09)751, presented at 7th Management Committee Meeting, Braunschweig, Germany, Feb. 16–18, 2009.

[TD08636] Alexander Paier, Johan Karedal, Thomas Zemen, Nicolai Czink, Charlotte Dumard, Fredrik Tufvesson, Christoph F. Mecklenbräuker, Andreas F. Molisch: "Description of Vehicle-to-Vehicle and Vehicle-to-Infrastructure Radio Channel Measurements at 5.2 GHz," COST 2100

TD(08)636, presented at 6th Management Committee Meeting, Lille, France, Oct. 6–8, 2008.

[TD08631] 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," COST 2100 TD(08)631, presented at 6th Management Committee Meeting, Lille, France, Oct. 6–8, 2008.

[TD08613] Ayse Adalan, Michael Fischer, Arpad L. Scholtz, Christoph F. Mecklenbräuker: "A Design Method for Ultra-Wideband Radio Pulse Shaping Filter Ensuring IEEE 802.15.4a Compliance," COST 2100 TD(08)613, presented at 6th Management Committee Meeting, Lille, France, Oct. 6–8, 2008.

[TD08473] Johan Karedal, Fredrik Tufvesson, Nicolai Czink, Alexander Paier, Thomas Zemen, Charlotte Dumard, Christoph F. Mecklenbräuker, Andreas F. Molisch: Geometry-Based Stochastic Channel Modeling of a Vehicle-to-Vehicle Radio Channel, COST 2100 TD(08)473, presented at 4th Management Committee Meeting, Wroclav, Poland, Feb. 6-8, 2008.

[TD08436] Alexander Paier, Johan Karedal, Nicolai Czink, Charlotte Dumard, Thomas Zemen, Fredrik Tufvesson, Andreas F. Molisch, Christoph F. Mecklenbräuker: Comparison of Lund'07 vehicular channel measurements with the IEEE 802.11p channel model, COST 2100 TD(08)436, presented at 4th Management Committee Meeting, Wroclav, Poland, Feb. 6-8, 2008.

[TD07303] Alexander Paier, Johan Karedal, Nicolai Czink, Helmut Hofstetter, Charlotte Dumard, Thomas Zemen, Fredrik Tufvesson, Christoph F. Mecklenbräuker, Andreas F. Molisch: "*First Results from Car-to-car and Car-to-infrastructure Radio Channel Measurements at 5.2 GHz*, COST-2100 TD(07)303, presented at 3rd Management Committee Meeting, Duisburg, Germany, Sep. 10–12, 2007.

COST IC1004

[1] Veronika Shivaldova, Christoph F. Mecklenbräuker: "Modeling of Signal-to-Noise Ratio and Error Patterns in Vehicle-to-Infrastructure Communications," Vortrag: COST IC1004 9th MC and Scientific Meeting, Ferrara, Italy; 05.02.2014 - 07.02.2014; in: COST IC1004 9th MC and Scientific Meeting, (2014), 5 S.

[2] Gregor Lasser, Christoph F. Mecklenbräuker: "Distortions of Measured Antenna Patterns caused by Dielectric Support Structures"; Vortrag:

COST IC1004 9th MC and Scientific Meeting, Ferrara. Italy; 05.02.2014 - 07.02.2014; in: COST IC1004 9th MC and Scientific Meeting, (2014), Paper-Nr. TD(14)09048, 6 S.

[3] Gregor Lasser, David Löschenbrand, Christoph F. Mecklenbräuker: Update on Distorted Measured Antenna Patterns, Vortrag: COST IC1004 10th MC and Scientific Meeting, Aalborg, Denmark; 26.05.2014 - 28.05.2014; in: COST IC1004 10th MC and Scientific Meeting, (2014), Paper-Nr. TD(14)10033, 8 S.

[4] Veronika Shivaldova, Andreas Winkelbauer, Christoph F. Mecklenbräuker: Vehicular Link Performance: From Real-World Experiments to Reliability Models and Performance Analysis, Vortrag: IC1004 8th MC and Scientific Meeting, Ghent, Belgium (eingeladen); 26.09.2013 - 27.09.2013; in: COST IC1004 8th MC and Scientific Meeting, (2013), 9 S.

ftw. Project Reports

[MAGNET D322a] Partners of Workpackage 3: "Candidate Air Interfaces and Enhancements", MAGNET Deliverable D.3.2.2.a, Oct. 31, 2004.

[I0D1] Olaf Albert and Christoph F. Mecklenbräuker: "*Ultra-Wideband Radio*," ftw. Project I0 *Signal and Information Processing*, Deliverable 1.1 *1st annual progress report in WP1*, Jul.2004.

[C3D15] Christoph F. Mecklenbräuker and Steffen Paul: "*HSDPA with MIMO enhancements*," ftw. Project C3 *Smart Antennas for UMTS Frequency Division Duplex*, Deliverable 15, Sep.2004.

[C3D11] Marius Pesavento, Thomas Zemen, and Christoph F. Mecklenbräuker: "*Measurement evaluation: MIMO channel parameter estimation and signal space dynamics*," ftw. Project C3 *Smart Antennas for UMTS Frequency Division Duplex*, Deliverable 11, Sep.2003.

[C3D9] Joachim Wehinger and Christoph F. Mecklenbräuker: "*Simulation Environment*," ftw. Project C3 *Smart Antennas for UMTS Frequency Division Duplex*, Deliverable 9, Sep.2004.

[C3D5] Markus Rupp and Christoph F. Mecklenbräuker: "*Antenna Array Algorithms for HSDPA*," ftw. Project C3 *Smart Antennas for UMTS Frequency Division Duplex*, Deliverable 5, Sep.2004.

[C3D1] Joachim Wehinger and Christoph F. Mecklenbräuker: "*Space-Time Rake receiver: algorithms, performance*," ftw. Project C3 *Smart Antennas for UMTS Frequency Division Duplex*, Deliverable 1, Sep.2004.

[C0D9] Olaf Albert and Christoph F. Mecklenbräuker: "*Ultra-Wideband Radio*," ftw. Project C0 *UMTS and Beyond*, Deliverable D.WP-9.a, Jul.2003.

[C2D6] Helmut Hofstetter, Christoph F. Mecklenbräuker, Hermann Anegg: "*Measurement Evaluation of Doubly-Directional Channel Impulse Response*," ftw. Project C2 *Smart Antennas*, Deliverable 2.6, Sep.2001.

[C2D1] Christoph F. Mecklenbräuker: "*Mobile Station Receiver Algorithms for Exploiting Antenna Diversity*," ftw. Project C2 *Smart Antennas*, Deliverable 2.1, Sep.2001.