

Publications

- [1] S. Yousefi, et al., "A Novel Model for simulation of RF Oscillator Phase Noise," in IEEE Radio and Wireless Symposium, New Orleans, USA, 2010.
- [2] S. Yousefi, "Phase Noise in Communication: Modeling, Simulation and Estimation," Chalmers University of Technology, Gothenburg, Master Thesis 2010.
- [3] S. Yousefi, et al., "Linear prediction of discrete-time 1/f processes," IEEE Signal Processing Letters, 2010.
- [4] Johan Söder, "Oscillator phase noise: capacity bounds and iterative code-aided estimation", Chalmers University of Technology, Gothenburg, Master Thesis 2010.
- [5] T. Eriksson, et al., "Low-complexity Volterra Modeling of Power Amplifiers," in INMMIC, Göteborg, Sweden, 2010.
- [6] Svensson, Tommy; Eriksson, Thomas: "On Power Amplifier Efficiency with Modulated Signals". IEEE VTC2010Spring, May 2010.
- [7] Marilynn P. Wylie-Green, Tommy Svensson, Erik Perrins: "Power and Spectrally Efficient Multiple Access Using CPM over SC-FDMA". IEEE VTC2010Spring, May 2010.
- [8] Mohammad R. Khanzadi, Hani Mehrpouyan, Erik Alpman, Dan Kuylenstierna, Thomas Eriksson "On Model, Bounds, and Estimation of Time-Varying fBm Phase Noise", IEEE ICSPCS, 2011.
- [9] Rajet Krishnan, Hani Mehrpouyan, Thomas Eriksson, Tommy Svensson "Optimal and Approximate Methods for Symbol-by-Symbol Detection of Uncoded Data with Carrier Phase Noise", IEEE Global Communications Conference, in press, 2011.
- [10] Eirik Rosnes, Michael Helmling, Alexandre Graell i Amat, "Pseudocodewords of Linear Programming Decoding of 3-Dimensional Turbo Codes", IEEE International Symposium on Information Theory, Saint Petersburg, Russia, August 2011. Accepted for publication.
- [11] Stefan Schwandter, Haifa Fares, Alexandre Graell i Amat, Gerald Matz, "Error Probability Bounds for Decode-and-Forward Relaying with two Correlated Sources", IEEE Global Conference on Communications, Houston, Texas, December 2011.
- [12] Fares, Haifa; Mohamed, Sidi Ould; Langlais, Charlotte; i Amat, Alexandre Graell; Berbineau, Marion; "MIMO systems for turbo coded cooperation over orthogonal and non-orthogonal channels", 11th International Conference on ITS Telecommunications (ITST), 2011, Page(s): 453 – 457.
- [13] Ali A. Nasir, Hani Mehrpouyan, Salman Durani, Rodney A. Kenedy, and Steven D. Blostein "Timing and Carrier Synchronization with Channel Estimation in Multi-Relay Cooperative Networks", IEEE Transactions on Signal Processing, no. 56 vol. 2, Feb. 2012.
- [14] Hani Mehrpouyan, Ali A. Nasir, Thomas Eriksson, Steven Blostein, George K. Karagiannidis, Tommy Svensson "Joint Estimation of Channel and Oscillator Phase Noise in MIMO Systems", IEEE Transactions on Signal Processing, Accepted, 2012.
- [15] Hani Mehrpouyan, and Steven D. Blostein, "On Channel Estimation for Multi-Relay MIMO Cooperative Networks", IEEE Transactions on Wireless Communications, Submitted April 2011, second round of review.

- [16] Hani Mehrpouyan, Ali A. Nasir, Thomas Eriksson, Steven Blostein, George K. Karagiannidis, Tommy Svensson "Channel and Time-Varying Phase Noise Estimation in MIMO Systems", IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC), in press 2012.
- [17] Ali A. Nasir, Hani Mehrpouyan, Steven Blostein, Salman Durani, and Rodney A. Kennedy "Estimation of Synchronization Parameters in AF Cooperative Networks", IEEE International Conference on Communications, in press 2012.
- [18] Hani Mehrpouyan, Steven D. Blostein, and Tommy Svensson "A New Distributed Approach for Achieving Clock Synchronization in Heterogeneous Networks", IEEE Globecom 2011, December, 2011.
- [19] R Krishnan, MR Khanzadi, L Svensson, H Mehrpouyan, T Eriksson, T Svensson "Variational Bayesian Framework for Receiver Design in the Presence of Phase Noise in MIMO Systems", IEEE Wireless Communications and Networking Conference, 2012.
- [20] Ali A. Nasir, Hani Mehrpouyan, Steven Blostein, Salman Durani, and Rodney A. Kennedy "Transceiver Design for Distributed STBC Based AF Cooperative Networks in the Presence of Timing and Frequency Offsets" Submitted to IEEE Transaction on Signal processing May of 2012.
- [21] Ali A. Nasir, Hani Mehrpouyan, Robert Schober "Phase Noise in MIMO Systems: Bayesian Cramer-Rao Lower Bounds and Soft-Input Estimation" Submitted to IEEE Transaction on Signal processing May of 2012.
- [22] Mohammad A. Tariq, Hani Mehrpouyan, Tommy Svensson "Performance of Circular QAM Constellations with Time Varying Phase Noise" IEEE Personal Indoor and Mobile Communications Conference (PIMRC), April 2012.
- [23] Huang, B.; Li, J.; Svensson, T.: A Utility-Based Scheduling Approach for Multiple Services in Coordinated Multi-Point Networks. Wireless Personal Multimedia Communications (WPMC), 2011 14th International Symposium on , pp. 1-5. ISBN/ISSN: 978-2-908849-26-4
- [24] Huang, B.; Li, J.; Svensson, T.: Joint Scheduling for Multi-Service in Coordinated Multi-Point OFDMA Networks. 2012 IEEE 75th Vehicular Technology Conference: VTC2012-Spring 6-9 May 2012, Yokohama, Japan, to appear.
- [25] Lakshmana, T. R.; Botella, C.; Svensson, T. Partial Joint Processing with Efficient backhauling in Coordinated MultiPoint Networks. 2012 IEEE 75th Vehicular Technology Conference: VTC2012-Spring 6-9 May 2012, Yokohama, Japan, To appear.
- [26] Papadogiannis, A.; Svensson, T.: Performance Analysis of Centralized Relay Selection with Unreliable Control Information. IEEE Vehicular Technology Conference, VTC 2012-Fall, Quebec City, Canada, Sep. 2012, to appear.
- [27] Lakshmana, T. R.; Botella, C.; Svensson, T., "Partial joint processing with efficient backhauling using particle swarm optimization", EURASIP JWCN, 2012.
- [28] Li J., Botella C., Svensson T., "Resource allocation for clustered network MIMO OFDMA systems", EURASIP JWCN, to appear 2012.
- [29] C. Koller, A. Graell i Amat, J. Kliewer, F. Vatta, K. S. Zigangirov, D. J. Costello, Jr., "Analysis and Design of Tuned Turbo Codes", IEEE Transactions on Information Theory, accepted for publication.
- [30] N. Bitouzé, A. Graell i Amat, E. Rosnes, " Making WOM Codes Decodable using Short Synchronous WOM Codes", IEEE International Symposium on Information Theory, ISIT 2012, Cambridge, MA, July 2012

- [31] A. Alvarado, A. Graell i Amat, F. Brännström, E. Agrell, "On the Equivalence of TCM Encoders", IEEE International Symposium on Information Theory, ISIT 2012, Cambridge, MA, July 2012
- [32] H. Farès, A. Graell i Amat, C. Langlais, M. Berbineau, "Two-Level HARQ for Turbo Coded Cooperation: System Retransmission Gain and Optimal Time Allocation", in Proc. IEEE Wireless Communications and Networking Conference, WCNC 2012, Paris, March 2012
- [33] B. Makki, A. Graell i Amat, T. Eriksson, "Power Allocation in Repetition Time Diversity Hybrid Automatic Repeat Request Feedback", in Proc. IEEE Wireless Communications and Networking Conference, WCNC 2012, Paris, March 2012.
- [34] Phase noise estimation for uncoded/codes SISO and MIMO Systems, M.Sc. Thesis, Chalmers, August 2012.
- [35] C. Häger, A. Graell i Amat, A. Alvarado, E. Agrell, "APSK Constellation Design for Coherent Optical Channels distorted by Nonlinear Phase Noise", IEEE International Conference on Communications, GLOBECOM 2012, CA, December 2012.
- [36] S. Schwandter, A. Graell i Amat, G. Matz, "Spatially Coupled LDPC Codes for Two-User Decode-and-Forward Relaying", International Symposium on Turbo Codes & Iterative Information Processing, ISTC 2012, Gothenburg, Sweden, August 2012.
- [37] N. Bitouzé, A. Graell i Amat, E. Rosnes, "Making WOM Codes Decodable using Short Synchronous WOM Codes", IEEE International Symposium on Information Theory, ISIT 2012, Cambridge, MA, July 2012.
- [38] A. Alvarado, A. Graell i Amat, F. Brännström, E. Agrell, "On the Equivalence of TCM Encoders", IEEE International Symposium on Information Theory, ISIT 2012, Cambridge, MA, July 2012.
- [39] B. Makki, A. Graell i Amat, T. Eriksson, "HARQ Feedback in Spectrum Sharing Networks", IEEE Communications Letters, to appear.
- [40] Krishnan et al, "Soft metrics and their Performance Analysis for Optimal Data Detection in the Presence of Strong Phase Noise", submitted to IEEE Trans. Comm.
- [41] G. Durisi: "On the Capacity of the Block-Memoryless Phase-Noise Channel", IEEE Comm. Letters, 2012
- [42] Mehrpouyan et al. "Joint estimation of channel and oscillator phase noise in MIMO systems", IEEE Trans. Signal Processing, 2012.
- [43] Khanzadi et al, "A model-based analysis of phase jitter in RF oscillators," Frequency Control Symposium, 2012.
- [44] Arif Onder Isikman, "Phase Noise Estimation for Uncoded/Coded SISO and MIMO Systems", Chalmers University of Technology, Gothenburg, Master Thesis 2012.
- [45] J. Li, X. Chen, C. Botella, T. Svensson, and T. Eriksson, "Resource allocation for OFDMA systems with multi-cell joint transmission," in Proc. IEEE SPAWC'12, Çe³me, Turkey, 2012, pp. 1-5.
- [46] J. Li, T. Eriksson, T. Svensson, and C. Botella, "Power allocation for two-cell two-user joint transmission," IEEE Commun. Letters, vol. 16, no. 9, pp. 1474-1477, 2012.
- [47] J. Li, A. Papadogiannis, R. Apelfröjd, T. Svensson, M. Sternad, "On the gains of CoMP under imperfect CSI and backhaul constraints," submitted to IEEE Trans.Vehicular Techn, Nov. 2012.

- [48] J. Li, C. Botella, and T. Svensson, "Resource allocation for clustered network MIMO OFDMA systems," *EURASIP J. Wireless Comm. And Netw.*, vol. 2012, 2012.
- [49] J. Li, T. Svensson, C. Botella, T. Eriksson, X. Xu, and X. Chen, "Joint scheduling and power control in coordinated multi-point clusters," in *Proc. IEEE VTC'11, San Francisco, USA*, Sept. 2011.
- [50] X. Chen, X. Xu, J. Li, T. Svensson, and H. Tian, "Optimal and efficient power allocation for OFDM non-coherent cooperative transmission," in *Proc. IEEE WCNC'12, Paris, France*, April 2012.
- [51] B. Huang, J. Li, and T. Svensson, "A utility-based joint resource allocation approach for multi-service in CoMP networks," *Wireless Personal Communications*, 2012, accepted.
- [52] Z. Mayer, J. Li, A. Papadogiannis, and T. Svensson, "On the Impact of Backhaul Channel Reliability on Cooperative Wireless Networks," in *Proc. IEEE ICC'13*, submitted.
- [53] Z. Mayer, J. Li, A. Papadogiannis, and T. Svensson, "On the impact of control channel reliability on coordinated multi-point systems," to be submitted to *EURASIP Journal on Wireless Communications and Net-working*, 2012.
- [54] T. R. Lakshmana, A. Papadogiannis, J. Li, and T. Svensson, "On the potential of broadcast CSI for opportunistic coordinated Multi-point transmission," in *Proc. IEEE PIMRC'12, Sydney, Australia*, Sept. 2012.
- [55] T. R. Lakshmana, J. Li, C. Botella, A. Papadogiannis, and T. Svensson, "Scheduling for backhaul load reduction in CoMP," in *Proc. IEEE WCNC'13*, submitted.
- [56] J. Li, A. Papadogiannis, R. Apelfröjd, T. Svensson, and M. Sternad, "Performance analysis of coordinated multi-point transmission schemes with imperfect CSI," in *Proc. IEEE PIMRC'12, Sydney, Australia*, Sept. 2012.
- [57] J. Li, B. Makki, T. Svensson, and T. Eriksson, "Power allocation for multi-point joint transmission with different node activeness," in *Proc. IEEE WCNC'13*, submitted.
- [58] T. R. Lakshmana, Tilak Rajesh; Botella, Carmen; Svensson, Tommy: Partial Joint Processing with Efficient backhauling in Coordinated MultiPoint Networks. *IEEE 75th Vehicular Technology Conference, VTC Spring 2012, Yokohama, 6 May-9 June 2012*, ISBN/ISSN: 978-146730990-5
- [59] A. Papadogiannis, T. Svensson, "Performance Analysis of Centralized Relay Selection with Unreliable Control Information," *IEEE Vehicular Technology Conference, VTC 2012-Fall, Quebec City, Canada*, Sep. 2012,
- [60] A. Papadogiannis, Y. Sui, T. Svensson, "The Potential of a Hybrid Fixed/User Relay Architecture -- A Performance Analysis. *IEEE Vehicular Technology Conference, VTC 2012-Fall, Quebec City, Canada*, Sep. 2012.
- [61] Mohammad A. Tariq, "Quantitative Evaluation of High Speed Microwave Modem", Chalmers University of Technology, Gothenburg, Master Thesis 2012.
- [62] Arif Önder Isikman, "Phase noise estimation for uncoded/coded SISO and MIMO systems", Chalmers University of Technology, Gothenburg, Master Thesis 2012.