Harry Leib

GUIDANCE OF GRADUATE THESES AND PROJECTS

[1] **Guangleei Dai, "Differential Detect-and-Forward Multi-Relay Wireless Network Employing Decision Feedback Differential Coherent Detecton"**
M. Eng. Project report, Dept. of Electrical and Computer Eng., McGill University, December 2013.

[2] **Djelili Radji, "Asymptotical Optimal Detection for MIMO Communication Systems"**
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, December 2013.

[3] **Yi Wang, "Joint OFDM Symbol Detection and Channel Estimation over Doubly Selective Channels"**
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[4] **Xiaofei Shao, "A Receiver Structure for Frequency-Flat Time-Varying Rayleigh Channels and Performance Analysis"**
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, November 2013.

[5] **Wenjing Lin, "Bit Diversity Combining for D-MIMO"**
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[6] **Faisal Aman Aziz, "Distributed Interference Alignment"**
M. Eng. Project report , Dept. of Electrical and Computer Eng., McGill University, April 2011.

[7] **Gabriel Vlad Feyer, "Channel Modeling and Informatic-Theoretic Processing for Nondestructive Testing"**
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[8] **Bharathram Sivasubramanian, "Raptor Codes for Error Correction over Wireless Channels"**
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[9] **Usa Vilaipornsawai, "Space-Time Coding and Receiver Design for Unknown Time-Varying Wireless Channels"**
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[10] **Yuri Karmalita, "Neyman-Pearson Detection of NTSC and OFDM Signals for IEEE 802.22**
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[11] **Tomas Sollund, "Dirty-Paper Coding over Noisy Feedback Channels with ISI"**
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[12] **Marthe Kassouf, "Capacity and Information Rates for Multiple Antenna Wireless Systems with Multi-dimensional Modulation"**
Ph.D. thesis, Dept. of Electrical and Computer Eng., McGill University, July 2008.

[13] **Kar Lun (Clarence) Wong, "Space-Time-Frequency Channel Estimation for Multiple-Antenna Orthogonal Frequency Division Multiplexing Systems"**
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[14] **Z. Shi, "Transmit Antenna Selected Spatial Multiplexing Systems with Power Allocation"**
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[15] **Y. Ma, "Multiple-Symbol Differential Detection for Differential Space-Time Modulation in the Presence of Multiple Cochannel Interferers"**
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[16] **Z. Szubbocsev, "The EM algorithm for frequency selective, quasi-static fading channels"**
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[17] **Y. Manroop, "A Low Complexity Two-Stage V-BLAST Detection Algorithm"**
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[18] **P. Bergeron-Burns, "Reduced Complexity Decoding for Multiple Antenna Wireless Comm."**
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[19] **F. Martin, “Distributed Detection for Handoff Macrodiversity in Cellular Comm. Systems”**
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[20] **Y. Deng, “Simplified Decoding for a Quasi-Orthogonal Space-Time Code Family”**
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[21] **H. Jin, “Wireless Channel Estimation Using Kalman Filtering for Space-Time Block Coded Systems”**
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[22] **J. Nikolic, “Turbo Decoding for Fading Channels with Unknown CSI at the Receiver”**
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[23] **M. Godbout, “A Framework for Multi-dimensional Space-Time Coded Systems with Applications to OCDMA Rayleigh Block Fading Channels”**
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[24] **L. Goulet, “Turbo Decoding for Transmit Diversity Communication Systems”**
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[25] **Xia Tan, “Optimum Multiuser Detection for a Synchronous CDMA System with Non-orthogonal Signature Waveforms”**
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[26] **P. Lim, “Comparison of Multirate Schemes for Wireless CDMA Systems”**
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[27] **F. Danilo, “Detection Techniques and Performance Analysis for Fading Multipath Channels with Unresolved Components”**
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[28] **A. Li, “Space-Time (2D) RAKE Receivers and Pre-RAKE Technologies for DS-CDMA Systems”**
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[29] **E. Malkamaki, “Performance of Error Control over Block Fading Channels with ARQ Applications”**
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[30] **Y. C. Yoon, "SNR Maximizing Linear Filters with Interference Suppression Capabilities for DS-CDMA"**
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[31] **M. Kimpe, "Computerized Estimation of the Indoor Wideband Radio Channel"**
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[32] **R. Mehio, "Performance and Channel Coding Trade-offs in Orthogonal CDMA"**
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[33] **A. Moussa, "The GSM and IS-95 Mobile Communication Systems"**
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[34] **G. Kipens, “A SAW-Based Commutation Signaling Modem for Broadband Indoor Wireless Communications”**
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[35] **J. P. Chaib, "Chip Shaping and Channel Coding for CDMA"**
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[36] **H. Ren, "Code Design for Broadband Indoor Wireless Communications Using Commutation Signaling"**
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[37] **P. Popescu, "Chip Timing Recovery for Indoor Wireless Networks Employing Commutation Signalling"**
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[38] **P. V. Krishnamurthy, "A Combined Frequency, Code and Time Division Multiple-Access Technique for Broadband Indoor Wireless Communications"**
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[39] **C. F. Kou, "Packet CDMA Performance with Imperfect Power Control"**
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[40] **J. B. McCluskey, "Multi-Tone Signals in the Baseband Clipping Channel"**
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[41] **N. Abboud, "Receiver Structures and Performance Analysis for Fading Multipath Chanels"**
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[42] **R. Knopp, "Module-Phase-Codes with Non-Coherent Detection and Reduced-Complexity Decoding"**
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[43] **K. Mehta, "Fourier Domain Techniques for Lattice Codes"**
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[44] **K. M. Cheung, "Generalized Likelihood Commutation Signaling for Indoor Communications"**
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[46] **W. J. McCausland, "Distortion Free Compression of Musical Scores"**
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[47] **K. M. Aleong, "A Technique for Combining Equalization with Differential Detection"**
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[48] **D. K. Asano, "Phase Smoothing Functions for Continuous Phase Modulation"**
M.A.Sc. thesis, Dept. of Electrical Eng., University of Toronto, 1990.

[49] **R. Pandey, "Noncoherent Detection of Continuous Phase Modulation"**
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