

## HARRY LEIB

### GUIDANCE OF GRADUATE THESES AND PROJECTS

- [1] **Usa Vilaipornsawai, “Space-Time Coding and Receiver Design for Unknown Time-Varying Wireless Channels”**  
Ph.D. thesis, Dept. of Electrical and Computer Eng., McGill University, August 2009.
- [2] **Yuri Karmalita, “Neyman-Pearson Detection of NTSC and OFDM Signals for IEEE 802.22**  
M. Eng. Project report , Dept. of Electrical and Computer Eng., McGill University, Nov. 2008.
- [3] **Tomas Sollund, “Dirty-Paper Coding over Noisy Feedback Channels with ISI”**  
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, August 2008.
- [4] **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.
- [5] **Kar Lun (Clarence) Wong, “Space-Time-Frequency Channel Estimation for Multiple-Antenna Orthogonal Frequency Division Multiplexing Systems”**  
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, August 2007.
- [6] **Z. Shi, “Transmit Antenna Selected Spatial Multiplexing Systems with Power Allocation”**  
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, September 2006.
- [7] **Y. Ma, “Multiple-Symbol Differential Detection for Differential Space-Time Modulation in the Presence of Multiple Cochannel Interferers”**  
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- [8] **Z. Szubocsev, “The EM algorithm for frequency selective, quasi-static fading channels”**  
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, November 2005 .
- [9] **Y. Manroop, “A Low Complexity Two-Stage V-BLAST Detection Algorithm”**  
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, October 2005 .
- [10] **P. Bergeron-Burns, “Reduced Complexity Decoding for Multiple Antenna Wireless Comm.”**  
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, April 2005 .
- [11] **F. Martin, “Distributed Detection for Handoff Macrodiversity in Cellular Comm. Systems”**  
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- [12] **Y. Deng, “Simplified Decoding for a Quasi-Orthogonal Space-Time Code Family”**  
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, June 2004 .
- [13] **H. Jin, “Wireless Channel Estimation Using Kalman Filtering for Space-Time Block Coded Systems”**  
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, December 2003 .
- [14] **J. Nikolic, “Turbo Decoding for Fading Channels with Unknown CSI at the Receiver”**  
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- [15] **M. Godbout, “A Framework for Multi-dimensional Space-Time Coded Systems with Applications to OCDMA Rayleigh Block Fading Channels”**  
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- [16] **L. Goulet, “Turbo Decoding for Transmit Diversity Communication Systems”**  
M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, December 2001.
- [17] **Xia Tan, “Optimum Multiuser Detection for a Synchronous CDMA System with Non-orthogonal Signature Waveforms”**  
M. Eng. Project report , Dept. of Electrical and Computer Eng., McGill University, Nov. 2001.
- [18] **P. Lim, “Comparison of Multirate Schemes for Wireless CDMA Systems”**  
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- [19] **F. Danilo, "Detection Techniques and Performance Analysis for Fading Multipath Channels with Unresolved Components"**  
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- [20] **A. Li, "Space-Time (2D) RAKE Receivers and Pre-RAKE Technologies for DS-CDMA Systems"**  
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- [21] **E. Malkamaki, "Performance of Error Control over Block Fading Channels with ARQ Applications"**  
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- [22] **Y. C. Yoon, "SNR Maximizing Linear Filters with Interference Suppression Capabilities for DS-CDMA"**  
Ph.D. thesis, Dept. of Electrical Eng., McGill University, January 1998.
- [23] **M. Kimpe, "Computerized Estimation of the Indoor Wideband Radio Channel"**  
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- [24] **R. Mehio, "Performance and Channel Coding Trade-offs in Orthogonal CDMA"**  
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- [25] **A. Moussa, "The GSM and IS-95 Mobile Communication Systems"**  
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- [26] **G. Kipens, "A SAW-Based Commutation Signaling Modem for Broadband Indoor Wireless Communications"**  
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- [27] **J. P. Chaib, "Chip Shaping and Channel Coding for CDMA"**  
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- [28] **H. Ren, "Code Design for Broadband Indoor Wireless Communications Using Commutation Signaling"**  
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- [29] **P. Popescu, "Chip Timing Recovery for Indoor Wireless Networks Employing Commutation Signalling"**  
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- [30] **P. V. Krishnamurthy, "A Combined Frequency, Code and Time Division Multiple-Access Technique for Broadband Indoor Wireless Communications"**  
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- [31] **C. F. Kou, "Packet CDMA Performance with Imperfect Power Control"**  
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- [32] **J. B. McCluskey, "Multi-Tone Signals in the Baseband Clipping Channel"**  
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- [33] **N. Abboud, "Receiver Structures and Performance Analysis for Fading Multipath Channels"**  
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- [34] **R. Knopp, "Module-Phase-Codes with Non-Coherent Detection and Reduced-Complexity Decoding"**  
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- [35] **K. Mehta, "Fourier Domain Techniques for Lattice Codes"**  
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- [36] **K. M. Cheung, "Generalized Likelihood Commutation Signaling for Indoor Communications"**  
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- [37] **P. Beirouti, "Automatic Repeat Request on Fading Channels"**  
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- [38] **W. J. McCausland, "Distortion Free Compression of Musical Scores"**  
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- [39] **K. M. Aleong, "A Technique for Combining Equalization with Differential Detection"**  
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- [40] **D. K. Asano, "Phase Smoothing Functions for Continuous Phase Modulation"**  
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- [41] **R. Pandey, "Noncoherent Detection of Continuous Phase Modulation"**  
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