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Research Interests

High-dimensional statistics, machine learning, convex optimization, and quantum and classical information theories

Education

- **Doctoral Student in Computer Science**, EPFL, Sep., 2012 – present
 - Supervisor: Prof. Volkan Cevher
- **M.S. in Communication Engineering**, National Taiwan University, 2010
 - Supervisor: Prof. Ping-Cheng Yeh
- **B.S.E. in Electrical Engineering** (minor in Economics), National Taiwan University, 2008

Work and Teaching Experiences

- **Teaching Assistant**, EPFL, Sep., 2013 – present
 - Fall, 2013: *Circuits and Systems I*
 - Fall, 2014: *Mathematics of Data: From Theory to Computation*
- **Research Assistant**, Academia Sinica, Jul., 2011 – Jul., 2012
- **Signal Platoon Leader (Second Lieutenant)**, R.O.C. Army, Aug., 2010 – Jul., 2011
 - One-year mandatory military service
- **Teaching Assistant**, National Taiwan University, Sep., 2009 – Jun., 2010
 - Fall, 2009: *Stochastic Process and Its Applications*
 - Spring, 2010: *Probability Theory and Statistics*
- **Research Assistant**, National Taiwan University, Sep., 2008 – Aug., 2009
 - One-year project jointly held by National Taiwan University and MediaTek Inc. on the multicast broadcast service part in the standardization of IEEE 802.16m

Publications

- **Papers**

- **Y.-H. Li**, Y.-P. Hsieh, N. Zerbib, and V. Cevher, “A geometric view on constrained M-estimators”, arXiv:1506.08163 [math.ST], 2015.
- Q. Tran-Dinh, **Y.-H. Li**, and V. Cevher, “Composite convex minimization involving self-concordant-like cost functions”, in *Modelling, Computation and Optimization in Information Systems and Management Sciences*, pp. 155–168, 2015.
- **Y.-H. Li** and V. Cevher, “Consistency of ℓ_1 -regularized maximum-likelihood for compressive Poisson regression”, in *IEEE Int. Conf. Acoustics, Speech and Signal Processing*, pp. 3606–3610, 2015.
- **Y.-H. Li**, J. Scarlett, P. Ravikumar, and V. Cevher, “Sparsistency of ℓ_1 -regularized M-estimators”, in *Proc. 18th Int. Conf. Artificial Intelligence and Statistics*, pp. 644–652, 2015.
- Q. Tran-Dinh, **Y.-H. Li**, and V. Cevher, “Barrier smoothing for nonsmooth convex minimization”, in *IEEE Int. Conf. Acoustics, Speech and Signal Processing*, pp. 1503–1507, 2014.
- **Y.-H. Li** and P.-C. Yeh, “An interpretation of the Moore-Penrose generalized inverse of a singular Fisher information matrix”, *IEEE Trans. Signal Process.*, vol. 60, no. 10, Oct., 2012.
- H.-C. Hu, **Y.-H. Li**, and P.-C. Yeh, “Adaptive precoder selection for multicast broadcast services in MIMO-OFDMA systems”, in *IEEE Vehicular Technology Conf.*, pp. 1–5, 2010.
- J.-P. Cheng, **Y.-H. Li**, P.-C. Yeh, and C.-M. Cheng, “MIMO-OFDM PHY integrated (MOPI) scheme for confidential wireless transmission”, in *IEEE Wireless Communications and Networking Conf.*, pp. 1–6, 2010.
- Y.-H. Kao, **Y.-H. Li**, W.-A. Lin, H.-C. Hu, and P.-C. Yeh, “Performance analysis of type-II hybrid ARQ systems”, in *IEEE Global Communications Conf.*, pp. 1–6, 2008.

- **Contributed Document**

- **Y.-H. Li**, H.-C. Hu, P.-C. Yeh, P.-K. Liao, C.-Y. Lin, Y.-H. Chang, and P. Cheng, “Adaptive Precoding Method for E-MBS”, IEEE C802.16m-09/1896r1, 2009.

- **Thesis**

- **Y.-H. Li**, *Estimation Problems with Singular Information Matrices: Cramér-Rao Bound and Its Application to Blind Channel Estimation*, M.S. thesis, Jul., 2010.