

LIST OF PUBLICATIONS
ERIK G. LARSSON

Books:

- [1] T. L. Marzetta, E. G. Larsson, H. Yang and H. Q. Ngo, *Fundamentals of Massive MIMO*, Cambridge, UK: Cambridge University Press, Nov. 2016.
- [2] E. G. Larsson and P. Stoica, *Space-Time Block Coding for Wireless Communications*. Cambridge, UK: Cambridge University Press, May 2003.

Chapters in Books:

- [1] E. G. Larsson, J. Li, and P. Stoica, "High-resolution nonparametric spectral analysis: theory and applications," in *High-resolution and robust signal processing* (Y. Hua, A. B. Gershman, and Q. Cheng, eds.), New York, NY: Marcel-Dekker, 2003. ISBN 0-8247-4752-6.
- [2] E. G. Larsson and E. Jorswieck, "Game theory," in *Mathematical Foundations for Signal Processing, Communications and Networking* (T. Chen, D. Rajan and E. Serpedin, eds.), CRC Press, 2011. ISBN 978-1-4398-5513-3.

Journal Papers:

- [1] M. Karlsson, E. Björnson and E. G. Larsson, "Techniques for system information broadcast in cell-free massive MIMO," *IEEE Transactions on Communications*. To appear.
- [2] H. V. Cheng, D. Persson and E. G. Larsson, "Optimal MIMO precoding under a constraint on the amplifier power consumption," *IEEE Transactions on Communications*. To appear.
- [3] M. Sadeghi and E. G. Larsson, "Adversarial attacks on deep-learning based radio signal classification," *IEEE Wireless Communications Letters*. To appear.
- [4] K. Senel and E. G. Larsson, "Grant-free massive MTC-enabled massive MIMO: A compressive sensing approach," *IEEE Transactions on Communications*. To appear.
- [5] C. Mollén, U. Gustavsson, T. Eriksson and E. G. Larsson, "Spatial characteristics of distortion radiated from antenna arrays with transceiver nonlinearities," *IEEE Transactions on Wireless Communications*. To appear.
- [6] E. Björnson, L. Van der Perre, S. Buzzi and E. G. Larsson, "Massive MIMO in sub-6 GHz and mmWave: Physical, practical, and use-case differences," *IEEE Wireless Communications Magazine*. To appear.
- [7] E. G. Larsson, T. Marzetta, H. Q. Ngo and H. Yang, "Antenna count for massive MIMO: 1.9 GHz versus 60 GHz," *IEEE Communications Magazine*. To appear.
- [8] M. Sadeghi, E. Björnson, E. G. Larsson, C. Yuen, and T. Marzetta, "Joint unicast and multi-group multicast transmission in massive MIMO systems," *IEEE Transactions on Wireless Communications*. To appear.
- [9] C. Mollén, U. Gustavsson, T. Eriksson, and E. G. Larsson, "Impact of spatial filtering on distortion from low-noise amplifiers in massive MIMO base stations," *IEEE Transactions on Communications*. To appear.

- [10] Z. Chen, E. Björnson and E. G. Larsson, “When is the achievable rate region convex in two-user massive MIMO systems?,” *IEEE Wireless Communications Letters*. To appear.
- [11] L. Liu, E. G. Larsson, W. Yu, P. Popovski, Č. Stefanović, and E. De Carvalho, “Sparse signal processing for grant-free massive connectivity: A future paradigm for random access protocols in the Internet of Things,” *IEEE Signal Processing Magazine*, vol. 35, pp. 88–99, Sept. 2018.
- [12] L. Van der Perre, L. Liu and E. G. Larsson, “Efficient DSP and circuit architectures for massive MIMO: State-of-the-art and future directions,” *IEEE Transactions on Signal Processing*, vol. 66, pp. 4717–4736, Sept. 2018.
- [13] E. G. Larsson and L. V. der Perre, “Out-of-band radiation from antenna arrays clarified,” *IEEE Wireless Communications Letters*, vol. 7, pp. 610–613, Aug. 2018.
- [14] C. Mollén, E. G. Larsson, U. Gustafsson, T. Eriksson and R. Heath, Jr., “Out-of-band radiation from large antenna arrays,” *IEEE Communications Magazine*, vol. 56, pp. 196–203, Apr. 2018.
- [15] J. Flordelis, F. Rusek, F. Tufvesson, E. G. Larsson and O. Edfors, “Massive MIMO performance – TDD versus FDD: What do measurements say?,” *IEEE Transactions on Wireless Communications*, vol. 17, pp. 2247–2261, Apr. 2018.
- [16] H. Q. Ngo, L.-N. Tran, T. Q. Duong, M. Matthaiou, and E. G. Larsson, “On the total energy efficiency of cell-free massive MIMO,” *IEEE Transactions on Green Communications and Networking*, vol. 2, pp. 25–39, Mar. 2018.
- [17] M. Karlsson, E. Björnson and E. G. Larsson, “Performance of in-band transmission of system information in massive MIMO systems,” *IEEE Transactions on Wireless Communications*, vol. 17, pp. 1700–1712, Mar. 2018.
- [18] P. Chandhar, D. Danev and E. G. Larsson, “Massive MIMO for communications with drone swarms,” *IEEE Transactions on Wireless Communications*, vol. 17, pp. 1604–1629, Mar. 2018.
- [19] T. Van Chien, E. Björnson and E. G. Larsson, “Joint pilot design and uplink power allocation in multi-cell massive MIMO systems,” *IEEE Transactions on Wireless Communications*, vol. 17, pp. 2000–2015, Mar. 2018.
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- [35] C. Mollén, J. Choi, E. G. Larsson and R. W. Heath, Jr., “Uplink performance of wideband massive MIMO with one-bit ADCs,” *IEEE Transactions on Wireless Communications*, vol. 16, pp. 87–100, Jan. 2017.

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- [1] Contributions as developer to IT++ (open-source C++ class library for scientific computing, see <http://itpp.sf.net>): GF(2) matrix algebra module, vector/MIMO modulator/demodulator module, fast likelihood algebra calculation module, and classes for LDPC coding. GNU GPL, mostly developed 2005–2007; later on refined by others.
- [2] Various code associated with published research papers. Available at www.commsys.isy.liu.se/~egl/software/.