

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.
- [3] T. L. Marzetta, E. G. Larsson and T. B. Hansen, “Massive MIMO and beyond,” in *Information-Theoretic Perspectives on 5G Systems and Beyond* (I. Maric, O. Simeone and S. Shamai, eds.), Cambridge University Press, 2020.

Journal Papers:

- [1] R. Long, Y.-C. Liang, Y. Pei and E. G. Larsson, “Active reconfigurable intelligent surfaces aided wireless communications,” *IEEE Transactions on Wireless Communications*. To appear.
- [2] Z. Chen, N. Pappas, E. Björnson and E. G. Larsson, “Optimizing information freshness in a multiple access channel with heterogeneous devices,” *IEEE Open Journal of the Communications Society*. To appear.
- [3] G. Interdonato, H. Q. Ngo and E. G. Larsson, “Enhanced normalized conjugate beamforming for cell-free massive MIMO,” *IEEE Transactions on Communications*. To appear.
- [4] L. Yu, J. Wu, A. Zhou, E. G. Larsson and P. Fan, “Massively distributed antenna systems with non-ideal optical fiber front-hauls: A promising technology for 6G wireless communication systems,” *IEEE Vehicular Technology Magazine*. To appear.
- [5] X. Chen, D. W. Kwan Ng, W. Yu, E. G. Larsson, N. Al-Dhahir and R. Schober, “Massive access for 5G and beyond,” *IEEE Journal on Selected Areas in Communications*, vol. 39, pp. 615–637, March 2021.
- [6] N. Akbar, E. Björnson, N. Yang and E. G. Larsson, “Max-min power control in downlink massive MIMO with distributed antenna arrays”, *IEEE Transactions on Communications*, vol. 69, pp. 740–751, Feb. 2021.
- [7] Z. Chen and E. G. Larsson, “Consensus-based distributed computation of link-based network metrics,” *IEEE Signal Processing Letters*, vol. 28, pp. 249–253, Jan. 2021.

- [8] N. M. Sarband, E. Becirovic, M. Krysander, E. G. Larsson and O. Gustafsson, “Massive machine type communication pilot-hopping sequence detection architectures based on non-negative least squares for grant-free random access,” *IEEE Open Journal of Circuits and Systems*, vol. 2, pp. 253–264, 2021.
- [9] M. Bashar, H. Q. Ngo, K. Cumanan, A. G. Burr, P. Xiao, E. Björnson and E. G. Larsson, “Uplink spectral and energy efficiency of cell-free massive MIMO with optimal uniform quantization,” *IEEE Transactions on Communications*, vol. 69, pp. 223–245, Jan. 2021.
- [10] Z. Gülgün, E. Björnson and E. G. Larsson, “Is massive MIMO robust against distributed jammers?,” *IEEE Transactions on Communications*, vol. 69, pp. 457–469, Jan. 2021.
- [11] J. Yuan, Y.-C. Liang, J. Joung, G. Feng and E. G. Larsson, “Intelligent reflecting surface-assisted cognitive radio system,” *IEEE Transactions on Communications*, vol. 69, pp. 675–687, Jan. 2021.
- [12] E. Björnson, Ö. Özdogan and E. G. Larsson, “Reconfigurable intelligent surfaces: Three myths and two critical questions,” *IEEE Communications Magazine*, vol. 58, pp. 90–96, Dec. 2020.
- [13] Y.-C. Liang, Q. Zhang, E. G. Larsson and G. Ye Li, “Symbiotic radio: Cognitive backscattering communications for future wireless networks,” *IEEE Transactions on Cognitive Communications and Networking*, vol. 6, pp. 1242–1255, Dec. 2020.
- [14] R. Chopra, C. R. Murthy, H. A. Suraweera and E. G. Larsson, “Blind channel estimation for downlink massive MIMO systems with imperfect channel reciprocity,” *IEEE Transactions on Signal Processing*, vol. 68, pp. 3132–3145, Dec. 2020.
- [15] E. Becirovic, E. Björnson and E. G. Larsson, “Joint antenna detection and Bayesian channel estimation for non-coherent user terminals,” *IEEE Transactions on Wireless Communications*, vol. 19, pp. 7081–7096, Nov. 2020.
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- [17] A. Zhou, J. Wu, E. G. Larsson and P. Fan, “Max-min optimal beamforming for cell-free massive MIMO,” *IEEE Communications Letters*, vol. 24, pp. 2344–2348, Oct. 2020.
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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/.