

Project publications

Theses

Y. Ivanenko. “Estimation of electromagnetic material properties with application to high-voltage power cables”. Växjö, Sweden: Department of Physics and Electrical Engineering, Linnæus University, 2017.

M. Nedic. “Integral representations of Herglotz-Nevanlinna functions”. Stockholm, Sweden: Department of Mathematics, Stockholm University, 2017.

Book chapters

M. Nedic, C. Ehrenborg, Y. Ivanenko, A. Ludvig-Osipov, S. Nordebo, A. Luger, B. L. G. Jonsson, D. Sjöberg, and M. Gustafsson. “Herglotz functions and applications in electromagnetics”. In: *Advances in Mathematical Methods for Electromagnetics*. Edited by K. Kobayashi and P. Smith. IET, 2018.

D. Tayli, M. Cismasu, and M. Gustafsson. “Fundamental bounds and optimization of small antennas”. In: *Developments in Antenna Analysis and Synthesis*. Edited by M. Raj. IET, 2018.

M. Gustafsson, D. Tayli, and M. Cismasu. “Physical bounds of antennas”. In: *Handbook of Antenna Technologies*. Edited by Z. N. Chen. Springer-Verlag, 2016.

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2018

O. Björkqvist, O. Dahlberg, G. Silver, C. I. Kolitsidas, O. Quevedo-Teruel, and B. L. G. Jonsson. “Wireless Sensor Network Utilizing RF Energy Harvesting for Smart Building Applications”. *IEEE AP magazine educational corner*, to appear (2018).

C. Ehrenborg and M. Gustafsson. “Fundamental bounds on MIMO antennas”. *Antennas and Wireless Propagation Letters, IEEE*, 17 (1) (2018): 21–24.

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S. Nordebo, M. Gustafsson, Y. Ivanenko, B. Nilsson, and D. Sjöberg. “Cylindrical multipole expansion for periodic sources with applications for three-phase power cables”. *Mathematical Methods in the Applied Sciences*, 41 (3) (2018): 959–965.

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D. Tayli, M. Capek, L. Akrou, V. Losenicky, L. Jelinek, and M. Gustafsson. “Accurate and Efficient Evaluation of Characteristic Modes”. *IEEE Trans. Antennas Propagat.* (2018).

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M. Gustafsson and C. Ehrenborg. “State-space models and stored electromagnetic energy for antennas in dispersive and heterogeneous media”. *Radio Sci.* 52 (11) (2017): 1325–1343.

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D. Tayli and M. Gustafsson. “Physical Bounds for Antennas Above a Ground Plane”. *Antennas and Wireless Propagation Letters, IEEE*, 15 (2016): 1281–1284.

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M. Gustafsson. “EM Modes for Model Order Reduction and Antenna Optimization”. In: *Antennas and Propagation & USNC/URSI National Radio Science Meeting, 2018 IEEE International Symposium on*. IEEE. 2018.

B. Xu, Z. Ying, M. Gustafsson, and S. He. “Effective Beam-Scanning Efficiency of Millimeter-Wave Subarrays for 5G User Equipment Application”. In: *12th European Conference on antennas and Propagation*. London, 2018.

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- C. Ehrenborg and M. Gustafsson. “Calculating Physical Bounds for In-body Antennas”. In: *12th European Conference on antennas and Propagation*. 2018.
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- M. Gustafsson. “Antenna current optimization, stored energy, and modes for small antennas”. In: *IEEE International Symposium on Antennas and Propagation*. 2016.
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