

Fabrizio Carpi

Email: fabrizio.carpi1@studenti.unipr.it

Website: <https://fabriziocarpi.github.io/>

Education

- 10/2015 – **University of Parma**, Parma, Italy.
10/2018 Master of Science in Communication Engineering.
Thesis: “Exploring Machine Learning Algorithms for Decoding Linear Block Codes.”
Advisors: Prof. Riccardo Raheli and Prof. Henry D. Pfister.
Co-advisors: Dr. Christian Häger and Dr. Marco Martalò.
- 10/2012 – **University of Parma**, Parma, Italy.
12/2015 Bachelor’s Degree in Information Engineering.
Thesis: “Experimental Study of SDN Network Architectures.”
Advisor: Prof. Luca Veltri. Co-advisor: Dr. Luca Davoli.

Experience

- 11/2018 – **University of Parma**, *Internet of Things (IoT) Lab*, Parma, Italy.
Present Position: *Research Associate*.
Working on outdoor/indoor localization within a project sponsored by the Huawei Innovation Research Program (HIRP). Principal Investigator: Prof. Gianluigi Ferrari.
- 03/2018 – **Duke University**, Durham, NC, USA.
08/2018 Position: *Visiting scholar*.
Working on my Master’s thesis regarding machine learning techniques applied to telecommunications. Host: Prof. Henry D. Pfister.

Publications and Preprints

- **F. Carpi**, C. Häger, M. Martalò, R. Raheli, H. D. Pfister, “Reinforcement Learning for Channel Coding: Learned Bit-Flipping Decoding,” *arXiv preprint*.
- **F. Carpi**, L. Davoli, M. Martalò, A. Cilfone, Y. Yu, Y. Wang, G. Ferrari, “RSSI-based Methods for LOS/NLOS Channel Identification in Indoor Scenarios,” in Proc. *16th Int. Symp. on Wireless Communication Systems (ISWCS 2019)*, Oulu, Finland, August 2019.
- M. Lian, **F. Carpi**, C. Häger, H. D. Pfister, “Learned Belief-Propagation Decoding with Simple Scaling and SNR Adaptation,” in Proc. *IEEE Int. Symp. on Information Theory (ISIT)*, Paris, France, July 2019.