Chair of Communications Engineering
TUM Department of Electrical and Computer Engineering
Technical University of Munich

Seminar

Polarization-adjusted convolutional codes

The student's task is to understand a recently introduced coding scheme, namely polarization-adjusted convolutional (PAC) codes [1]. In addition to encoding and decoding schemes presented in the papers below [2,3], the students asked to study the error exponent for concatenated code ensembles [4], which is closely related to the good performance of not only concatenated polar codes but also PAC codes.

- [1] https://arxiv.org/pdf/1908.09594.pdf
- [2] https://arxiv.org/pdf/2002.06805.pdf
- [3] https://arxiv.org/pdf/2003.08640.pdf
- [4] http://yoksis.bilkent.edu.tr/pdf/files/13637.pdf

Prerequisites

Information Theory

Channel Coding

Channel Codes for Iterative Decoding

Contact

mustafa.coskun@tum.de

Advisors

Mustafa Coskun