

Seminar

# Capacity Bounds for the Deletion Channel

The Shannon capacity of the binary channel is still unknown. However, there are many works on both, finding achievable rates for this channel and upper bounds on the capacity.

In this topic, the student's task is to review most recent results on upper bounds on the channel capacity. In particular, the student will study a recent survey [1] on results on the channel capacity of synchronization channels. After having obtained an overview over the capacity results, the student will select one approach, which is presented in [1] and study it in more detail.

As a result, the student will gain insights into methods on bounding the deletion channel capacity and will be able to present one specific method to his fellow students.

[1] M. Cheraghchi and J. Ribeiro, "An Overview of Capacity Results for Synchronization Channels," in IEEE Transactions on Information Theory

## Prerequisites

- Information Theory

## Advisors

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