

Exercise 1

1.1

The LPC technique predicts the next values from a given signal. It is based on the source-filter model of speech production, which states that speech is created by a source (the vocal cords) and an independent filter (the vocal tract) which creates resonances (formants). It is useful for encoding compressed speech.

1.2

TODO: Block diagram

$$x_{j+1} = \sum_{i=0}^k a_k x_{j-i}$$

1.3

TODO

1.4

TODO

1.5

TODO

1.6

TODO