

## Talen en Automaten

Additional assignments for exercise class on Fri 14<sup>th</sup> Dec, 2018

- a) Recall the language  $L$  of palindromes:

$$L = \{w \in \{a, b\}^* \mid w = w^R\}.$$

Give a PDA that accepts  $L$ , and show that  $aba$  is accepted but  $ab$  is not.

- b) Use the algorithm from the lecture to construct a CFG for the language  $L$  of palindromes, using the PDA in your answer to the previous question.
- c) Use the construction from the lecture to give a PDA accepting the language generated by the following grammar:

$$S \rightarrow aS \mid Sb \mid ab \mid SS$$