

# Automata Theory: Assignment 5

Due date: February 21 (Thursday)

## Problem 1 (4 points)

Draw an NFA that accepts the language defined by the following grammar:

$$\begin{aligned} S &\rightarrow aaA \mid bb \\ A &\rightarrow aaA \mid bbB \\ B &\rightarrow bS \mid bC \\ C &\rightarrow S \mid \lambda \end{aligned}$$

## Problem 2 (6 points)

Give a right-linear grammar and left-linear grammar for the following language:

$$\{(ab)^n(bb)^ma : n \geq 1, m \geq 2\}$$