

# **AFL: Assignment 1**

Due on October 4, 2018 at 11:55pm

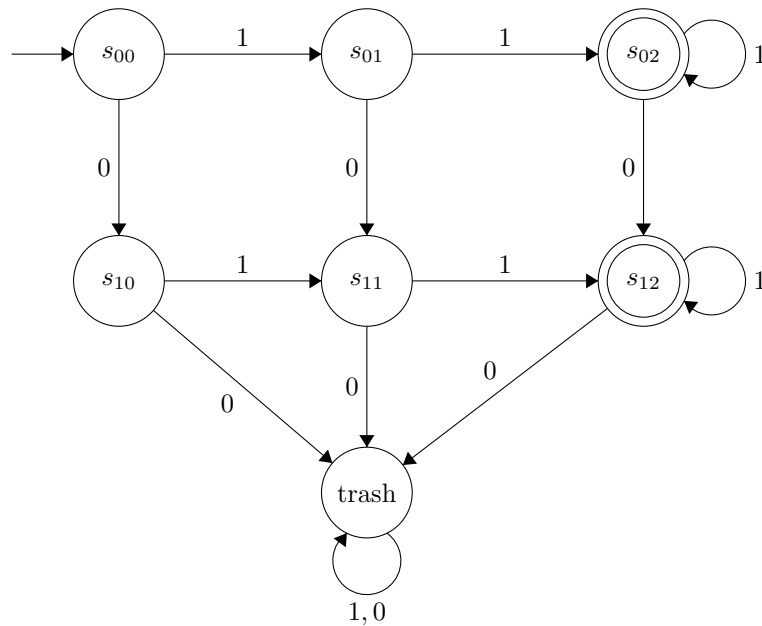
*Prof. Laura Pozzi*

**A. Romanelli**

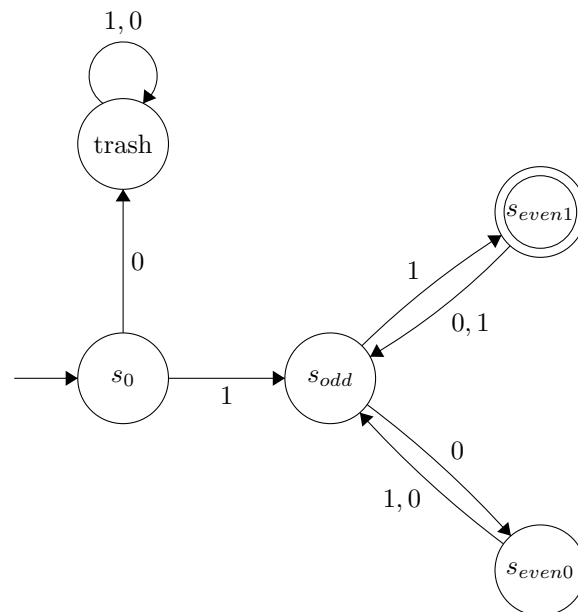
## Problem 1

Draw the FAs recognising the following Languages, over alphabet  $\Sigma = \{0, 1\}$ :

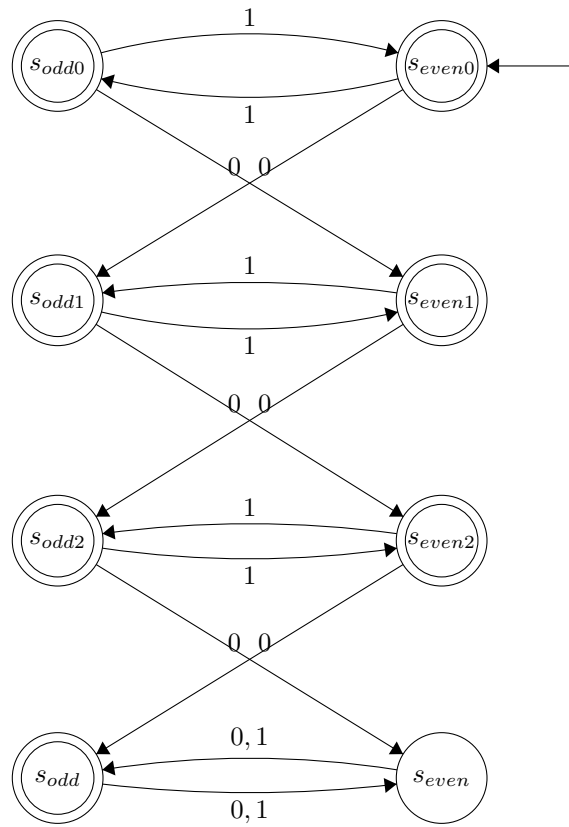
$$L1 = \{w \mid w \text{ has at most one 0 and at least two 1s} \}$$



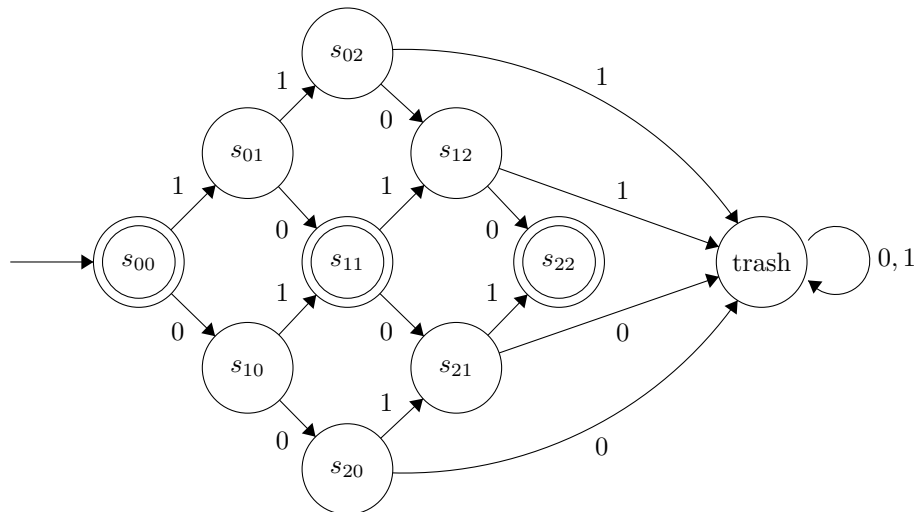
$$L2 = \{w \mid w \text{ starts and ends with 1 and has even length} \}$$



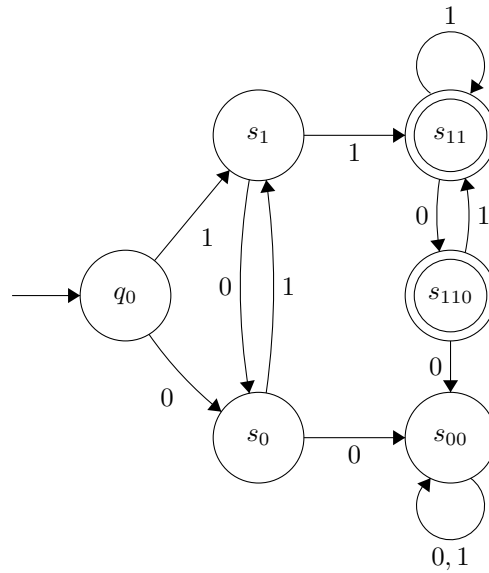
$$L3 = \{w \mid w \text{ has odd length or } w \text{ has at most two 0s} \}$$



$$L4 = \{w \mid w \text{ has at most length 4 and has as many 0s as 1s} \}$$



$L5 = \{w \mid w \text{ contains substring } 11 \text{ and does not contain substring } 00\}$



$L6 = \{w \mid w \text{ contains an even number of occurrences of substring } 00\}$

