

# Homework 2

TIF150, Information theory for complex systems 2017

## Correlation complexity

Consider the process defined by the finite automaton below. When two arcs leave a node they have the same probability.

- a) What is the entropy  $s$  of this stochastic process?
- b) How long correlations are there, i.e., for which  $m$  are  $k_m > 0$ ?
- c) Determine the correlation complexity  $\eta$ .

