

ITT8040 Cellular Automata

Assignment 1

March 13, 2013

Read pages 1–15 of Prof. Kari's notes.

1. Try to run 20 iterations of 4 elementary CA of your choice, starting from an initial configuration with a single cell in state 1. Draw the space-time diagrams.
2. Let $c \in S^{\mathbb{Z}^d}$ be a configuration.
 - (a) Prove that there exists a sequence of finite configurations that converges to c .
 - (b) Prove that there exists a sequence of totally periodic configurations that converges to c .

Soft deadline: **March 20, 2013**
Hard deadline: **March 27, 2013**