Computational Complexity

Reading guide and Homework for **Week 04**

1 Reading Guide

In class we have learned:

- What a non-deterministic Turing machine is, how to define NTIME. Read §2.2.2

- The classes coNP, NE and NEXP. Read §2.6

- The time-hierarchy theorem for non-deterministic machines. §3.2.

- The polynomial-time hierarchy, and some complete problems for some levels of it. §5.1, §5.2.

- Space complexity: PSPACE and NSPACE, and basic inclusions. §4.1

There were several details that we covered very quickly, and which **must** be looked at carefully, in order to properly understand what is going on. This kind of familiarity will be necessary to understand what's being said in class.

There are no exercises or homework to be done this week.