

# Exercise Session 10

## Shared Memory

December 13, 2010

### Problem 1

Use the idea of the transformation from  $(1, N)$  regular to  $(1, 1)$  atomic registers (Algorithm 4.3) to adapt the “Read-One Write-All” algorithm (Algorithm 4.1 in the book) to implement a  $(1, 1)$  Atomic Register.

### Problem 2

Give an algorithm that implements a  $(1, 1)$  atomic register in the fail-silent model and that is more efficient than the “Read-Impose Write-Majority” algorithm (Algorithm 4.64.7 in the book implements a  $(1, N)$  atomic register in the fail-silent model).