

Recal I

Asynchronous system: All message delays and processing delays can be arbitrarily long or short.

Consensus:

- Each process p has a **state**
 - program counter, registers, stack, local variables
 - input register x_p : initially either 0 or 1
 - output register y_p : initially b (undecided)
- Consensus Problem: design a protocol so that either
 - all processes set their output variables to 0 (all-0's)
 - Or all processes set their output variables to 1 (all-1's)
 - Non-triviality: at least one initial system state leads to each of the above two outcomes