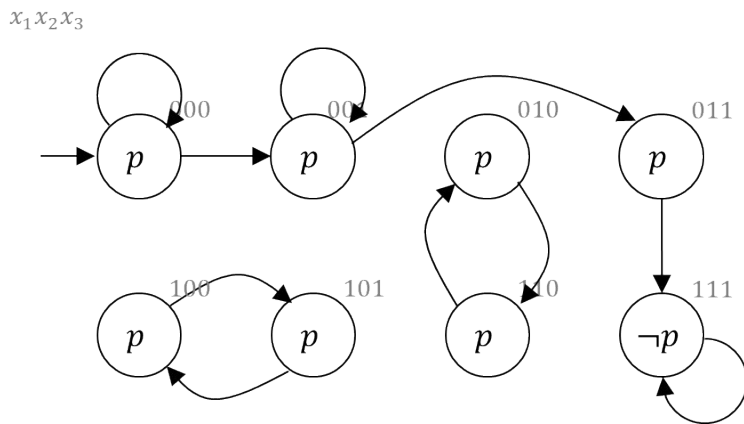


Model Checking Homework 3

Deadline: 1 April 4:00pm

Send solution to: modelchecking@iaik.tugraz.at

Consider the following synchronous Kripke structure K .



We wish to prove that p is always true.

Task 3. [10 points] Use Model Checking with Craig Interpolants to prove that the property is false.

Clearly indicate the steps. I would like to see the interpolants as formulas, for anything else, you can use set notation. You can also draw the sets, but use enough copies of the FSM to make sure we can understand your steps. (at least one for every k .)

Use the same heuristic shown in class to find the interpolants. (The heuristic shown in class is a hack, but it works in this example.)