

Exercise 4

Probabilistic Model-checking with PRISM

Continuing our example with the door locking mechanism and the laser from the lecture slides (pp. 29–34), your task is to determine the probability of the occurrence of a hazard.

Therefore, assume that the probability that the door lock fails to lock the door is $p/1000h$ and that the probability of a failure to switch-off the laser is $q/1000h$.

Use the PRISM tool¹ to perform such an analysis.

¹PRISM is available under <http://www.prismmodelchecker.org/>