

Languages, automata and computation II

Homework 2

Problems: deadline XX/12/2024

Problem 1. A *parametric finite weighted automaton* is a finite weighted automaton where the initial vector, the final vector, and the transition matrices can contain one parameter p (interpreted in the field of rational numbers). Formally, their entries are univariate polynomials in $\mathbb{Q}[p]$. Show that the set of rational number values for the parameter p s.t. the automaton has the zero semantics has measure either 0 or 1.

Problem 2.

Problem 3.