

Model Checking (SS 2024) Homework 8

Deadline: May 20, 2025, 9:00am

Submit your solution through TeachCenter

Transform φ into a Generalized Büchi Automata A_φ such that A_φ accepts exactly all the computations that satisfy φ . Use the algorithm from Vardi and Wolper that we discussed in the lecture. You can also find the algorithm on page 98 of the Model Checking book.

Task 1. [50 points] Compute the Generalized Büchi Automata for the formula $\varphi := a \vee Xb$.

Task 2. [50 points] Compute the Generalized Büchi Automata for the formula $\varphi := \neg a \mathcal{U} \neg b$