

12. Exercises for the Course „Description Logics“

Exercise 52:

Determine whether or not Player 2 has a winning strategy in the following games:

- The PSPACE game $G = (\varphi, \{p_0, p_2\}, \{p_1, p_3\})$ with

$$\varphi = (\neg p_0 \rightarrow p_1) \wedge ((p_0 \wedge p_1) \rightarrow (p_2 \vee p_3)) \wedge (\neg p_1 \rightarrow (p_3 \rightarrow \neg p_2)).$$

- The EXPTIME game $G' = (\varphi, \Gamma_1, \Gamma_2, t_0)$ with
 - $\varphi = (p_1 \wedge p_2 \wedge p_3 \wedge \neg q) \vee (\neg p_1 \wedge \neg p_2 \wedge \neg p_3 \wedge q)$;
 - $\Gamma_1 = (p_1, p_2, p_3)$;
 - $\Gamma_2 = (q)$;
 - $t_0(p_1) = t_0(p_2) = t_0(p_3) = t_0(q) = 0$.