Lehrstuhl für Automatentheorie
Institut für Theoretische Informatik, TU Dresden
Prof. Dr. F. Baader

Nöthnitzer Str. 46
01187 Dresden
Tel.: 0351/463–38237
Tel.: 0351/463–39171

11. Exercises for the Course
„Description Logics"

Exercise 50:

Show that subsumption in $\mathcal{FL}_0$ w.r.t. acyclic TBoxes is in co-NP by giving a polytime reduction from this problem to the inclusion problem for acyclic finite automata (which is in co-NP).

Exercise 51:

Finish the proof of Lemma 4.18 by showing that exhaustive application of the normalization rules NF1 to NF5 to a general $\mathcal{EL}$-TBox terminates in polynomial time.