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Computational logic

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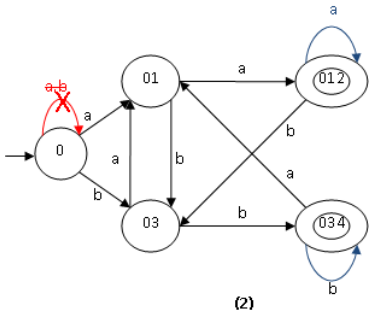
Addenda & Errata

(additions in blue; corrections in red; notes in green)

p. 34, **Proposition 1.2.11.** $glb(x, y) := x \cap y$
p. 41, l. 12: **1.2.26. (Def.)** *Graphs*
p. 42, l. 11: **1.2.27. (Def.)** *Trees*
p. 61, l. 2: 5. $L(y \cdot a \cdot w^* \cdot n) = \{yaw^*n\} = \{yan, yawn, yawwn, ...\}$
p. 66, l. 5: ... derivation tree (cf. Def. 1.2.27.1).
p. 76, l. 21: ... substitution of the variable B by the terminal b ...
p. 77, l. 3: (iii) $\quad LA \rightarrow a$
p. 78, **Theorem 2.1.12.** (*Proof*, l. 7) (cf. Exercise 2.1.3.6). Because...
p. 91, **Figure 2.2.4.2**: (When saving the figure, some error occurred that saved not the final figure but a previous stage of the figure in which the loop a,b on state 0 had not been yet removed (as this was built on Figure 2.2.4.1) and the loops on states 012 and 034 were accidentally removed)



(2)

p. 102, **Figure 2.2.8**: the arc from q_0 to q_1 is labeled ϵ; $\begin{cases} Z_0/Z_0 \\ A/A \end{cases}$
p. 104, l. 9: $\left(q_0^{'}, x, X_0\right) \vdash_{M'}^{*} (q_0, x, Z_0X_0)$.
p. 106, **Example 2.2.10.** Let $G = (\{S, A, B, C\}, \{a, b, c\}, S, P)$

$\vdots$

$$\delta\left(q_0, \epsilon, Z_0\right) = \{(q_1, SZ_0)\}$$

p. 107, l. 5 from bottom: $[qAp] \underset{G}{\overset{*}{\Longrightarrow}}_l ay_1y_2...y_n = x$.

p. 109, **Prop. 2.2.22.** ... and intersection with $\mathscr{RGL}$. (The proof sketch is only for closure under complementation. Hint for the proof of closure under intersection with $\mathscr{RGL}$: You will need a DPDA M_1 and a deterministic FSR M_2.)

p. 115, l. 12: $[q, s_0X_1...s_{k-1}X_ks_k, w] \vdash^* \left[q, s_0X_1...s_{i-1}X_is_iA \underbrace{s}_{=\delta(s_i,A)}, w\right]$

p. 170, **Exercise 3.1.1.1.** ...set of quantifiers $Q = \{\forall, \exists\}$.

p. 190, **Exercise 3.2.4.** For convenience ...

p. 190, **Exercise 3.3.5.** Let the following ...

p. 193, l. 10: Why 1 and 0 can be...

p. 202, l. 4 from bottom: ... does indeed follow from or ...

p. 217, **Def. 3.4.30.3.** We say that ~~ϕ is invalid~~ or *contingent* iff it is...

p. 222, **Example 3.4.3.** ... from Examples 3.4.1 and 3.4.3 that...

p. 224, **Exercise 3.4.4.1.** ... DT (Theorem 3.4.11) ...

p. 240, l. 2: Definition 3.5.16.3 is more...

p. 252, l. 11: ... clearer in Definition 4.2.5.6 below.

p. 258, **Prop. 4.3.1.** ($\Vdash 8$) $(A \to B) \wedge (B \to C) \to (A \to C)$

p. 282, **Exercise 5.2.2.** Prove ... the arguments of Exercise 5.1.2.

p. 307, **Def. 6.3.6.** $\blacklozenge_1x_1...\blacklozenge_nx_n\left(\phi\left(x_1, ..., x_n\right)\right)$

p. 333, **Exercise 7.3.1.5.** (instead of **7.1.3.5**) and **Exercise 7.3.1.6.** (instead of **7.1.3.6**)

p. 339, **Figure 7.3.2.** ... in Example 7.3.3.

p. 369, **Exercise 8.1.4.2.** Prove that the set C is unsatisfiable...

p. 376, **Example 8.1.22**. Figure 8.1.17 shows the input, and Figure 8.1.18...

p. 393, l. 21-2: ... our FO language $\mathsf{L}1$...

p. 394, **Figure 8.2.5.** The tree is obviously closed.

(The following renumbering corrections depend on first correcting the exercise numbers on page 190)

p. 358, **Exercise 8.1.2.4.**3. Exercise 3.2.4.

p. 411, **Exercise 9.1.2.7.** With respect to the argument in Exercise 3.2.4

p. 419, **Exercise 9.1.3.2.** With respect to the argument in Exercise 3.2.4

p. 428, **Exercise 9.1.4.4.** Construct ... in Exercise 3.2.4.

p. 433, **Exercise 9.2.1.1** Consider the theory of Exercise 3.2.4

(End)

Last updated: October 2018