

The Pumping Lemma for Well-Nested Multiple Context-Free Languages Errata & Addenda

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1. On page 317, in Section 4, the conclusion of the second rule should be

$$\Gamma_1, \dots, \Gamma_n \vdash_G \pi T_1 \dots T_n : B(t_1, \dots, t_r)\sigma$$

and the rule in the second line of page 318 should be changed to

$$B(t_1, \dots, t_r) :- B_1(x_{1,1}, \dots, x_{1,r_1}), \dots, B_n(x_{n,1}, \dots, x_{n,r_n}).$$

2. On page 324, at the end of Section 6, “one of the seven intervals $[pi + 1, p(i + 1)]$ consisting of the $(pi + 1)$ -th through the $p(i + 1)$ -th symbols” should be replaced by the following:
one of the seven intervals $[\max\{1, p(i - 1) + 1\}, \min\{12p, p(i + 1)\}]$
consisting of the $\max\{1, p(i - 1) + 1\}$ -th through the $\min\{12p, p(i + 1)\}$ -th symbols
3. Using Greibach’s (1978a, 1978b) terminology, Seki et al.’s (1991) pumping lemma can be stated as “Every m -MCFL is weakly $2m$ -iterative”, while the pumping lemma of this paper can be stated as “Every well-nested m -MCFL is $2m$ -iterative”.

References

- Greibach, S.A. 1978a. One way finite visit automata. *Theoretical Computer Science* **6**, 175–221.
- Greibach, S.A. 1978b. Hierarchy theorems for two-way finite state transducers. *Acta Informatica* **11**, 89–101.