Errata to Infinite Words

- page 17, line 11-13: q_{n+1} should be q_n (Goutam Biswas, june 2007).
- page 42, line -7: the set $X = L^\omega(\mathcal{A})$
- page 45, line -10: Consider a finite Büchi automaton
- page 46, line 2: i should be I (Goutam Biswas, july 2007).
- page 61, Proposition I.10.1: delete 'and conversely'. There is no polynomial bound for the size of a regular expression for the set recognized by a Büchi automaton. Change also the label of the corresponding arrow in Figure 10.1 to 'Exp'.

  page 62, Proposition I.10.2 is consequently false. Remove subsection 10.2 and modify the arrow on Figure 10.1 to 'Exp'.

  (Thomas Wilke, january 2005. See his review in *Bull. Symbolic Logic*, **11**, 2005, p. 246).
- page 123, add Example: Figure 10.1 represents a prophetic automaton recognizing the set of words on $\{a, b\}$ with an infinite number of occurrences of b.
- page 154, delete Formula (4) line -1 (Olivier Carton, november 2007)
- page 155, line 2 read $\{(y, x)...$
- page 205, Figure 4.8. A Muller automaton.
- page 425, proof of Theorem X.3.7. The argument for the second and third case are inaccurate. To reestablish a correct one, start the proof with a Rabin automaton instead of a Muller automaton.

  For the second case, the new automaton $\mathcal{A}_1$ is obtained by suppressing all transitions from state q different from (q, q, q).

  For the third case, choose a path π_0 such that the set $\mathrm{Inf}(\pi_0)$ is the set of live states. Since r is successful, there is a pair (L, R) such that $\mathrm{Inf}(\pi_0) \cap L = \emptyset$ and $\mathrm{Inf}(\pi_0) \cap R \neq \emptyset$. Choose a state q in $\mathrm{Inf}(\pi_0) \cap R$. We build a rational run $r_1 \cdot_q r_2^{\omega,q}$ as follows. The run r_1 is build as in the second case above. The run r_2 is build by choosing q as initial state and by making it nonlive when revisited the first time. One can verify that this run is successful. In particular, if π is a path where q appears infinitely often the pair (L, U) is appropriate.

  (Alexander Rabinovich, december 2006)
- page 515, line 8 Büchi automata
  line 12 μ-calculus