Errata : Algebraic Combinatorics on Words

This document contains errata for the book Algebraic Combinatorics on Words. Page and line numbers refer to the printed version. Please report errors to the author of the chapter or to one of the editors.

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Finite and Infinite Words

Sturmian Words

page 56, eq. (2.1.7)
replace $\ldots < 1 + \rho + v_n$ by $\ldots < 1 + \beta + v_n$. (*Kwon, Doyong*)

page 56, line 7
replace $(x + y, x)$ by $(x + y, y)$. (*Kwon, Doyong*)

page 57, line 8
replace $R^{n+i}(\rho)$ by $R^{n+k}(\rho)$ and replace $R^{-i}(I_{b_i})$ by $R^{-k}(I_{b_i})$. (*Kwon,*

Doyong)

page 61, last paragraph of the proof of Proposition 2.1.18
It should read: "... We may suppose that $\beta < \alpha$. For any factor u of s such that $(\alpha-\beta) \geq 2/|u|$, one has $\pi(u)-\alpha > -1/|u|$ by Proposition 2.1.10 whence $\pi(u) - \beta = (\pi(u) - \alpha) + (\alpha - \beta) \geq 1/|u|$ showing that ...". (*K. Saari, Kwon, Doyong*)

page 67, line -13
Replace "if follows" by "it follows". (*Kwon, Doyong*)

page 72, line 4
Replace $(x, y), (x', y')$ by $(y, x), (y', x')$. (*Kwon, Doyong*)

page 79, line 10
w^d is a *left* special factor. (*C. Reutenauer*)

page 83, line 3
$\mu() = \frac{1}{N} \cdots$. (*C. Reutenauer*)

page 92, lines 14–15
Replace φ by G and $\tilde{\varphi}$ by $\tilde{G}$ (twice each). (*C. Reutenauer*)

page 99, line 1
Replace "only $1-\alpha$" by "only if $1-\alpha$". (*Kwon, Doyong*)

page 108, line -16
... the infinite word $01^{k_0}01^{k_1}01^{k_2}\cdots$. (*C. Reutenauer*)

Unavoidable Patterns

page 120, lines 6 and 7
Replace "with r and q playing respectively the roles of p and p'" by "with r, q, and p playing respectively the roles of p, p', and q".

page 121, lines 14
Replace $x \in A$ by $x \in A = A_k$ (or equivalently replace the 12 occurrences of A by A_k on pages 121 and 122).

page 123, line -3
This problem has been solved by P. Ochem (to be published in 2003) who showed that $\mu(\alpha\alpha\beta\beta\gamma\gamma) = 2$. The status of $\mu(\alpha\beta\gamma\alpha\gamma\beta)$ is open.

page 127, line 9
Replace "Corollary 3.2.11" by "Proposition 3.1.4 and Corollary 3.2.11".

page 127, line -11
Replace "Assume that B_1, ..." by "Assume that $B_0 = 1$ and B_1, ..."

page 127, line -1
Change the four occurrences of i to j.

page 129, lines 14 to 18
Replace the five occurrences of B_{n-r-1} by B_{n-r}.

page 130, lines 8 and 9
Replace the two occurrences of $g(w_n)$ by w_n.

page 135, lines -4 and -3
Replace "None of them seems to have been solved yet; Problems 3.1.5 and 3.3.5 are in that list." by "Problems 3.1.5 and 3.3.5 are in that list. Problem 3.3.5 was solved negatively by R. J. Clark (Ph. D. thesis, UCLA, 2001)".

Sesquipowers

The Plactic Monoid

Codes

Numeration Systems

page 243, line 5
Replace $f_{F(Y^*)}$ by f_{Y^*}. (*Kwon, Doyong*)

page 251, lines 23–24
Remove the first sentence. (*G. Skordev*)

Periodicity

Centralizers of Noncommutative Series and Polynomials

Transformations on Words and q-Calculus

Statistics on Permutations and Words

Makanin's Algorithm

Independent Systems of Equations

References

page 491
The correct subtitle of Morse and Hedlund (1940) is : II. Sturmian trajectories, and the volume is **62**. (*C. Reutenauer*)