



SDI Review Form 1.6

Journal Name:	British Journal of Mathematics & Computer Science
Manuscript Number:	2013_BJMCS_7434
Title of the Manuscript:	Generalizing the Asymmetric Run-length-limited Systems
Type of the Article	Original Research Paper

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	The author needs to revise several of his arguments. Many explanations, neither clear nor strong enough, failed to convince the reviewer. In particular, proving Theorem 4.1., the author has to show that X does not have any finite presentation, rather than only to show that one presentation of X has infinite vertices. In the first line of the proof of Theorem 4.4., please explain in more detail why x is in ∂Z. In the last line of the same proof, what '4.2.' indicates is not located. In Example 4.5., Figure 2 is incorrect as the empty word can be placed between β and α. Consider $111\alpha 0\beta\alpha$. In the statement of Lemma 4.6., it is unclear what the author means by 'copy'.	In the new version, Section 3 has been omitted and merged in the beginning of Section 4. Thus Theorems 4.1 and 4.4 are now Theorems 3.2 and 3.5 respectively and some changes in the proofs are given. Figure 2 is Figure 3 in this new version. It was in fact correct. That figure was aimed and concentrated to show that the system is not AFT. Now we have changed to a symmetrical graph which shows that it is an intertwined system and surely not AFT. Also, by definition of intertwined system, $111\alpha 0\beta\alpha$ is not in $\mathcal{B}(Z)$. Note that in this example $\epsilon\alpha$ is not a member of V where ϵ is the empty word. Now Lemma 3.7. ! It has been changed to at least two paths labeled $\\$ p \\$.



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	The existence of w in the last statement of the proof of Lemma 4.7 with the given property is also supported with a weak argument. A more detailed one is required. In the proof of Theorem 4.8., in the fourth last line of p.107, αu^m seems a typo of βu^m since u_1 is assumed to be β, but then the argument accordingly needs to be changed. The role of Section 3 is not mentioned anywhere. Introduction should include some statements or paragraphs about why it was written, what it implies or what relation it has with other sections. Now, it is not clear whether Theorem 3.1. Needs to be proven separately or not. It would make no difference if Theorem 3.1. Were in Section 4 without any proof, only mentioning it is an easy corollary of well-known results. The definitions of several important notions are omitted and need to be done: In p.102 'follower-separated', in p.104 'β-shift', in Lemma 4.6 'primitive', in Theorem 4.8 '$P_n(X)$', and so on.	Done at Lemma 3.8, 108. It has been corrected. An explanation is given above. That theorem ([Theorem 3.1) is without proof now. Surely the proof was too trivial. Done!
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<u>Minor</u> REVISION comments	The paper lacks consistency of the styles in citing other papers. In the first page, it refers to [Lind and Marcus (1995)], while in p.103, the same book is cited as (Lind and Marcus, 1995, Theorem 2.4.10). Intertwined systems vary as the specified synchronized word changes. Thus the basic notation of the systems should be $X_V \& X_W$, and the notation can be $X_1 \& X_2$ only when V and W are well understood, respectively. When intertwined systems are defined, it would be better to show that $\&$ operations are actually associative.	This inconsistency was noticed by authors! As if it is the routines of this journal. We use the standard commands for citing, and the style of the journal gives different outputs depending on alluding to a theorem, lemma,... or not. Usually we have written $X \& Y = X_V \& X_W$ as in Theorem 3.2, page 105 and Theorem 3.4, page 106. Otherwise, it has been done as advised. Unfortunately, they are not! Because when $X_1 \& X_2$ is performed it is not clear which synchronizing word of $X_1 \& X_2$ to be chosen to perform $(X_1 \& X_2) \& X_3$. It is not commutative either, unless we are intertwining only two systems.
<u>Optional/General</u> comments	There are many typos thorough the paper, for example, in the first page 'concatenating', in Example 4.2. '$I = F_Y(\beta 11)$', and in Theorem 4.8. '$p^m \in Y$' (it is not a point but a word), '$P_{n+m}(X) \cap P_{n+m}(X)$ (the latter X must be Y)', and so on. In Definition 4.1., different words are denoted by $v^1, v^2, \dots$, but it makes reader confused as a power of a word usually is a notation for a concatenation of the word. The reviewer recommend to write them as $v^{(1)}, v^{(2)}, \dots$. It would also be convenient for readers if the adjacency matrices of $X \& X_{W1}$ and $X \& X_{W2}$ are provided in p.104.	Done! It was once used and now corrected in Definition 3.1. Adjacency matrices have been provided. See page 104. Other changes are highlighted in yellow in the text.