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Corrigendum

to the paper

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Periodicity and eigenvalues of matrices over quasi-max-plus algebras

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p. 55: Replace Proposition 2.5 (iv) by:

(iv) Let $\alpha, \beta \in \mathscr{D}$ with $\alpha <_{\mathrm{lex}} \beta$. Then we have $\alpha\gamma \le_{\mathrm{lex}} \beta\gamma$ for all $\gamma \in \mathscr{D}$.

p. 55: Replace the proof of Proposition 2.5 (iv) by:

(iv) Assume $\alpha\gamma >_{\mathrm{lex}} \beta\gamma$. Then $\alpha, \beta, \gamma \ne \varepsilon$, and in view of our prerequisites we have $\alpha_1 = \beta_1$ and $\alpha_2 < \beta_2$. This implies

$$(\alpha\gamma)_1 = (\beta\gamma)_1,$$

hence

$$\max\{\alpha_2, \gamma_2\} = (\alpha\gamma)_2 > (\beta\gamma)_2 = \max\{\beta_2, \gamma_2\} \tag{1}$$

by our assumption. Therefore $\gamma_2 = \min S$ and the left hand side of (1) equals α_2, while the right hand side of (1) equals β_2: Contradiction.

p. 56: Replace the proof of Proposition 2.5 (v) by:

(v) We clearly have $\alpha_2 = \beta_2$. Now, the assumption $\alpha_1 < \beta_1$ leads to the contradiction $(\alpha_1)^n < (\beta_1)^n$. Therefore we must have $\alpha_1 \ge \beta_1$. Analogously we find $\alpha_1 \le \beta_1$, and we conclude $\alpha_1 = \beta_1$.

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