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ERRATA CORRIGE: THE MATCHING PROBLEM FOR BEHAVIORAL SYSTEMS

G. CONTE AND ANNA M. PERDON

It has been brought to the authors' attention by N. Karcianas and D. Vafiadis (personal communication) that the proof of Proposition 7 in the mentioned paper contains an incorrect assertion.

In the proof of Proposition 7 it is assumed that a rational matrix $W(s)$ can be written as a product $V(s)P(s)$, where $P(s)$ is polynomial and $V(s) = \text{diag}(s^{-\alpha_1}, s^{-\alpha_2}, \dots, s^{-\alpha_n})$. This is obviously not true in general and, actually, what is needed in the proof is to write $W(s)$ as a product $V(s)P(s)$ where $V(s) = \text{diag}(\alpha_1^{-1}(s), \alpha_2^{-1}(s), \dots, \alpha_n^{-1}(s))$, with $\alpha_i(s)$ non zero polynomials for $i = 1, 2, \dots, n$, and $P(s)$ polynomial. Taking $V(s) = \text{diag}(\alpha_1^{-1}(s), \alpha_2^{-1}(s), \dots, \alpha_n^{-1}(s))$ the proof proceeds without any change and the result of Proposition 7 holds.

REFERENCES

- [1] G. Conte and A. M. Perdon: The matching problem for behavioral systems. *Kybernetika* 31 (1995), 6, 613–621.

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