

Erratum

for the paper D. Henrion, M. Šebek “Polynomial and Matrix Fraction Description”, Chapter 6.43.13.5 in the UNESCO Encyclopedia of Life Support Systems, EOLSS Publishers, Oxford, UK, September 2001.

I am grateful to Ivan Kapalin from Lomonosov Moscow State University who kindly informed me that the numerical example in section 3.3 (on properness of polynomial matrix fraction descriptions) is wrong. Correct matrix expressions read

$$N_R(s) = [2s^2 + 1 \quad 1], \quad D_R(s) = \begin{bmatrix} s^3 + 1 & s \\ s^2 + s + 1 & 1 \end{bmatrix}$$

for which indeed

$$G(s) = N_R(s)D_R^{-1}(s) = \begin{bmatrix} \frac{-s^2+s}{s^2+s-1} & \frac{s^3+s-1}{s^2+s-1} \end{bmatrix}.$$

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