Legged Self-Manipulation Errata

Aaron M. Johnson

September 20, 2018

This document contains errata collected for the paper:

- Page 310, Before the Abstract, the citation to prior publication of section IV-A should read [13].

- Page 315, Eqn. (14), the $A^T_{gc1o}$ terms should be adjoint matrices, $Ad^T_{gc1o}$.

- Page 316, Eqn. (17), the subscript on $R$ should read $wp$, i.e. $R^T_{wp}$, as in the line above.

- Page 317, Eqn. (29) should be the line just after Eqn. (28).

- Page 328, Eqn. (68), the length terms in the denominator of the first line should be squared, as in Eqn. (67):

$$
\varepsilon_n := \frac{\phi}{\theta_1} = -\frac{2I_l + m_r(\frac{\rho_1}{2})^2}{I_b + 2I_l + 2m_l\ell_1^2 + m_r\rho_i^2}
$$

- Page 328, Result C.5, the font for $\varepsilon_n$ should match Eqn. (68).

- Page 330, Appendix D, first column, the sixth line of equations in this section should not include the symbol $\times$ (this should be interpreted as the usual matrix multiplication with the previous line):

$$
T = \frac{1}{2}(V^{b}_{wp})^T M_b V^{b}_{wp} + \sum_{i=1}^{n} \frac{1}{2}(Ad_{gpl}_i V^{b}_{wp} + V^{b}_{pl_i})^T M_l_i (Ad_{gpl}_i V^{b}_{wp} + V^{b}_{pl_i})
$$

- Page 331, Appendix E, first column, the fourth line of equations on this page should not include the symbol $\times$ (this should be interpreted as the usual matrix multiplication with the previous line):

$$
\lambda = A^*(\gamma - \bar{M}\dot{q} - \bar{C}\dot{q} - \bar{N}) \\
= A^*(\gamma - (\bar{M}H)\dot{y} - (\bar{M}H + \bar{C}H)\dot{y} - \bar{N}) \\
= A^*(Id_q - \bar{M}H(\bar{H}^T\bar{M}H)^{-1}\bar{H}^T)(\gamma - (\bar{M}H + \bar{C}H)\dot{y} - \bar{N}) \\
= A^*(\gamma - (\bar{M}H + \bar{C}H)\dot{y} - \bar{N}).
$$

- Page 332, second column, the reference to the mass matrix and Corilis matrix in Fig. 15 should have no equation numbers (81 and 82 are unrelated).