

# Erratum: “Motion Equations for the Ball and Beam and the Ball and Arc Systems” [ASME J. Dyn. Sys., Meas., Control., 2019, 141(12), p. 121006; DOI: 10.1115/1.4044619]

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In the original publication, Fig. 4 should state the references used were Refs. [7] and [8]. The caption of the paper is correct.

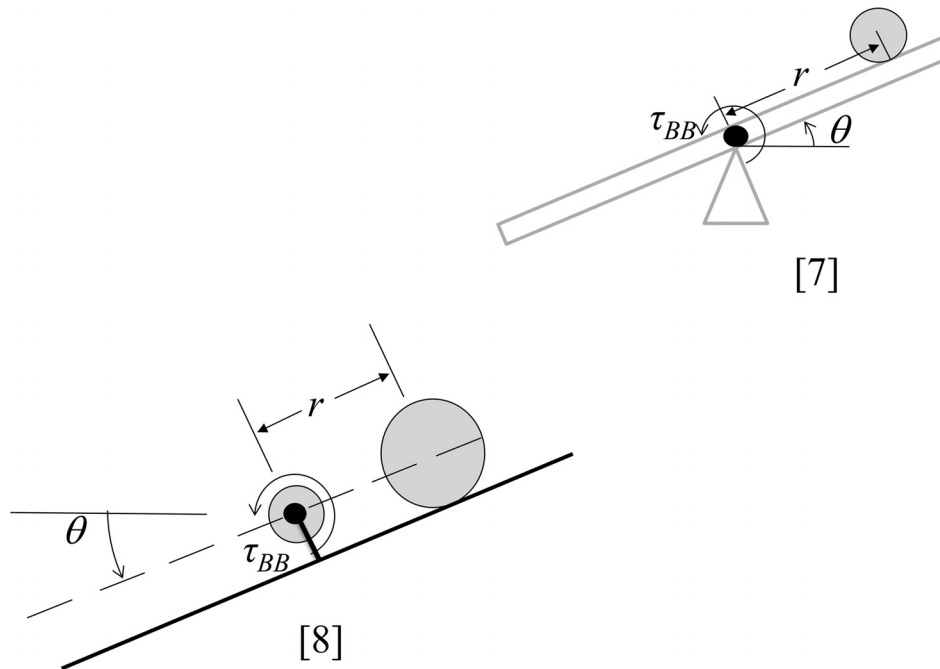


Fig. 4 Ball and Beam models from Refs. [7] and [8]

On page 121006-7, under the subsection, “Comparison to Common Ball and Beam Models,” a consideration for when the offset,  $H$ , is defined such that the off-diagonal terms of the mass matrix are zero is not discussed. Defining

$$H = -\frac{J_b + mR_o^2}{mR_o}$$

leads to a mass matrix of

$$M(q) = \begin{bmatrix} mr^2 + J_{\text{beam}} + J_B + \frac{J_B^2}{mR_o^2} & 0 \\ 0 & \frac{J_B}{R_o^2} + m \end{bmatrix}$$

which is a result that also does not agree with the mass matrix of Ref. [8].

On page 121006-11, the correct author for Ref. [31] is Wieneke, J.