

ERRATA:

Fusing ultra-wideband range measurements with accelerometers and rate gyroscopes for quadrocopter state estimation

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Abstract—This document contains the known errors in the ICRA paper “Fusing ultra-wideband range measurements with accelerometers and rate gyroscopes for quadrocopter state estimation”.

Last updated: June 25, 2015.

The differential equation for the attitude error δ , (16), is incorrect. The correct version, to first order, is as below.

$$\dot{\delta} = \hat{\omega} + \frac{1}{2} \llbracket \hat{\delta} \times \rrbracket \hat{\omega}. \quad (1)$$

The numerical values for the drag coefficients in (22) and (23) have the wrong sign. The correct values are:

$$\kappa_{\perp} = -0.000\,11 \text{ N s}^2 \text{ rad}^{-1} \text{ m} \quad (2)$$

$$\kappa_{\parallel} = -0.000\,23 \text{ N s}^2 \text{ rad}^{-1} \text{ m}. \quad (3)$$