

*full-state  
unmatched  
uncertainty*

$$v \sin \beta$$

$$v \cos \beta - v$$

$$d_{x_B}$$

*full-state  
matched  
uncertainties*

$$d_\theta$$

$$v$$

$$x_B$$

$$y_B$$

$$\omega$$

$$\theta$$

$$\beta$$

$$y_I$$

$$x_I$$

$$\mathcal{C} \triangleq \left\{ \begin{bmatrix} x^I \\ y^I \\ \theta \end{bmatrix} \in X : y^I + \xi_\theta \sin \theta + \tau \geq 0 \right\}$$