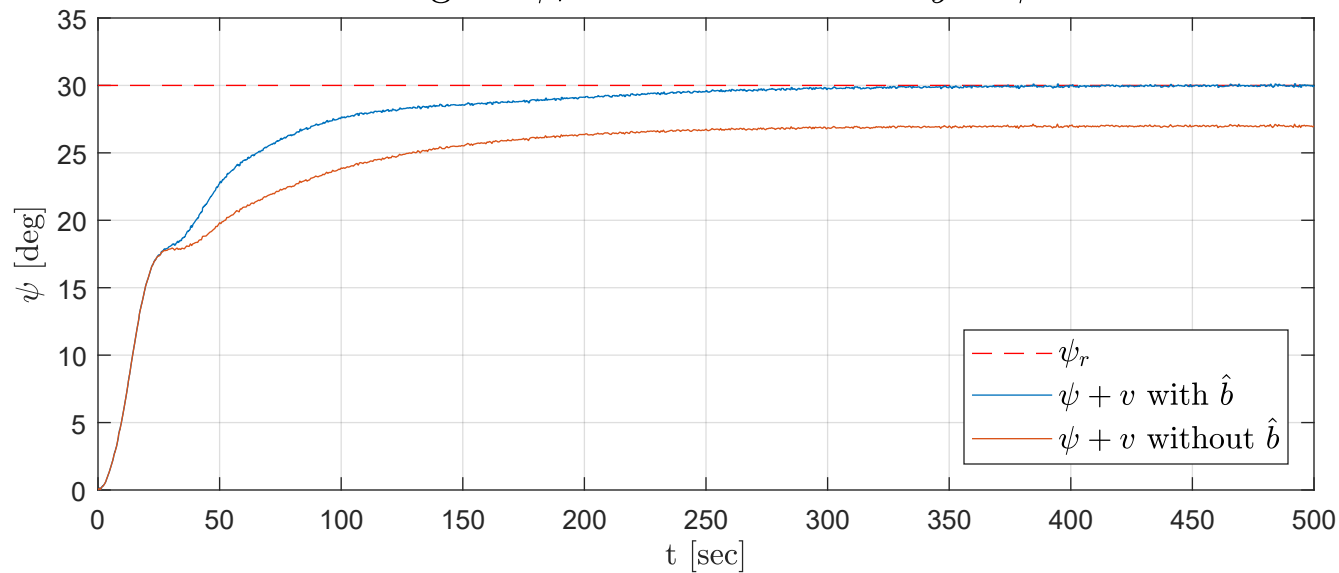


# Heading ref $\psi_r$ and measurement $y = \psi + v$



# Rudder bias $\hat{b}$ and control $\delta$

