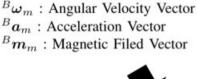


 $\dot{\boldsymbol{x}} = \boldsymbol{A}\boldsymbol{x} + \boldsymbol{B}_{u}\boldsymbol{u} + \boldsymbol{B}_{w}\boldsymbol{w}$ $y = C_y x + D_u u + D_w w$

The optimal \mathcal{H}_2 gain \boldsymbol{L}_0

 $\dot{\boldsymbol{x}}(t) = \boldsymbol{f}(\boldsymbol{x}, \boldsymbol{u}, \boldsymbol{w}, t)$

y(t) = h(x, w, t)



Data

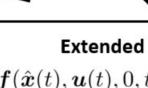
Optimization with LMI

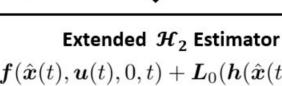
Non-Linear

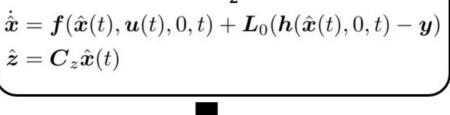
System

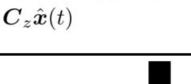


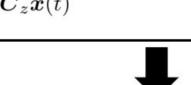












Euler angle
$$:= egin{bmatrix} \phi & heta & \psi \end{bmatrix}^T$$