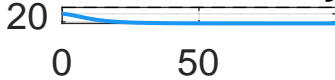


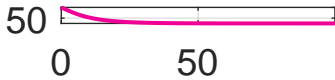
$v$  (m/s)

**State - Velocity**

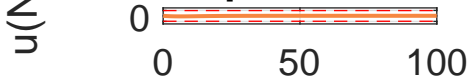


$z$  (m)

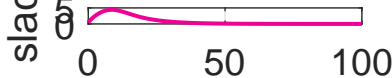
**State - Distance to lead vehicle**



**Control Input - Wheel Force**

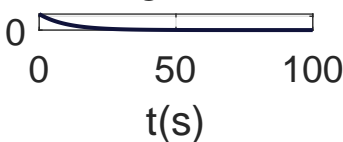


**Slack variable**



$h(x)$

**CBF**



$V(x)$

**CLF**

