

## Lec 10

2) Design a lead controller  
 $D(s) = K \frac{s+a}{s+b}$ , for the plant  $G(s) = \frac{1}{s(s+1)}$

Unity feedback,  $W_c = 2$ ,  $PM > 45^\circ$

$f_s = 10\text{Hz}, 20\text{Hz}, 40\text{Hz}$

Svar: Trial and error med sisotool "

$$D(s) = 2.03 \left( \frac{1+s}{1+0.1s} \right)$$