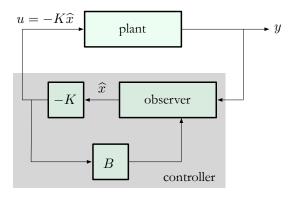
Dynamic Output Feedback

$$\dot{\hat{x}} = (A - LC - BK)\hat{x} + Ly, \quad u = -K\hat{x}$$



Controller transfer function (from y to u):

$$s\widehat{X} = (A - LC - BK)\widehat{X} + LY, \quad U = -K\widehat{X}$$

$$U = \underbrace{-K(Is - A + LC + BK)^{-1}L}_{=D(s)}Y$$