

$$[N, Wn] = \text{buttord}(Wp, Ws, Rp, Rs, 's')$$

$$[Num, Den] = \text{butter}(N, Wn, 'ftype', 's')$$

$$[z, p, k] = \text{butter}(N, Wn, 'ftype', 's')$$

$$\text{systemfunction} = \text{tf}(Num, Den)$$

$$[Y, T] = \text{step}(sys, T_{\text{final}})$$

$$[H, w] = \text{freqs}(B, A)$$

$$\phi(\omega) = \text{phase}(H)$$

$$\text{phase delay} = -\frac{\phi(\omega)}{\omega}$$

$$\text{group delay} = -\frac{d\phi(\omega)}{d\omega}$$