



Figure S18. Time and frequency domain responses of first order lag and lead-lag systems. (A) Step, and (B) frequency responses of a first order lag system. In (B), breakpoint frequency is equal to $1/\tau_p = 0.1$ rad/s. Unit step responses of lead-lag processes with (C) $\tau_z/\tau_p < 1$, and (D) $\tau_z/\tau_p > 1$. Magnitude Bode plots of lead-lag processes with (E) $\tau_z/\tau_p < 1$, and (F) $\tau_z/\tau_p > 1$.