



### Model Parameters:

$L$  = filament length ( $\mu\text{m}$ )

$\mu_e$  = extensional modulus (nN)

$\mu_c$  = extensional modulus (nN)

$l_c$  = cross-link spacing ( $\mu\text{m}$ )

$\xi$  = inter-filament friction (nN•s/ $\mu\text{m}$ )

$v$  = active filament force (nN)

$\phi$  = cross-link active fraction

$\tau_r$  = filament recycling time (s)

$\xi$  = medium viscosity (nN•s/ $\mu\text{m}^2$ )