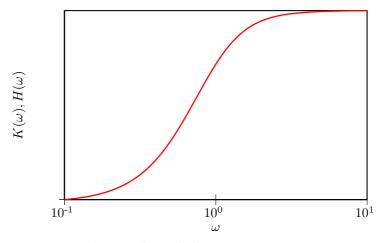
## GENERALIZED LANGEVIN EQUATION ANALYTICS

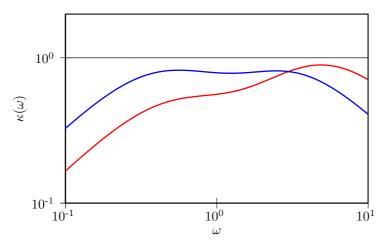
• Drift matrix  $A_p$ :

$$\left( \begin{array}{cccc} 4.3864 \times 10^{+00} & 1.4004 \times 10^{+00} & -7.1078 \times 10^{-02} \\ 1.6894 \times 10^{+00} & 5.5956 \times 10^{-01} & -6.0769 \times 10^{-01} \\ 5.1798 \times 10^{-01} & 6.0769 \times 10^{-01} & 1.2317 \times 10^{+00} \end{array} \right)$$

- Fluctuation-Dissipation theorem is enforced,  $\mathbf{C}_p = k_B T$
- Memory kernel FT,  $K(\omega)/K(0) = H(\omega)/H(0)$



• Sampling efficiency, for  $q^2$  and  $p^2 + \omega^2 q^2$ :



• Free-particle diffusion coeff.  $(mD/k_BT)$ :  $8.5653 \times 10^{-01}$