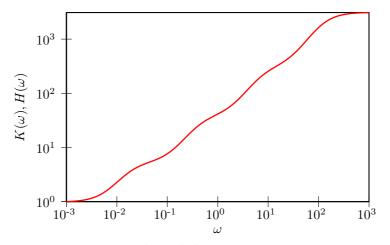
GENERALIZED LANGEVIN EQUATION ANALYTICS

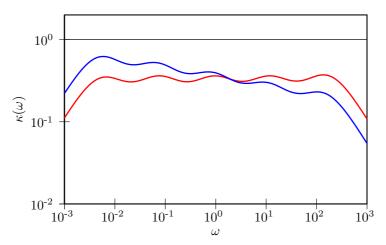
• Drift matrix A_p :

```
 \begin{pmatrix} 5.5441\times10^{+01} & 1.8308\times10^{-01} & -3.7766\times10^{-01} & -5.1252\times10^{+00} & 7.4066\times10^{+01} \\ -1.7157\times10^{-01} & 3.1769\times10^{-03} & 6.4884\times10^{-02} & -4.4203\times10^{-02} & -1.9420\times10^{-01} \\ -6.1420\times10^{-01} & -6.4884\times10^{-02} & 3.6572\times10^{-01} & -2.0491\times10^{-01} & -1.9692\times10^{-01} \\ -5.8053\times10^{+00} & 4.4203\times10^{-02} & 2.0491\times10^{-01} & 6.3133\times10^{+00} & -4.2470\times10^{-01} \\ 7.1459\times10^{+01} & 1.9420\times10^{-01} & 1.9692\times10^{-01} & 4.2470\times10^{-01} & 1.0583\times10^{+02} \end{pmatrix}
```

- 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) : $5.7346 \times 10^{+01}$