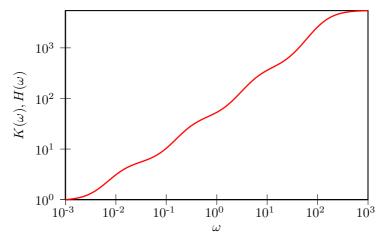
GENERALIZED LANGEVIN EQUATION ANALYTICS

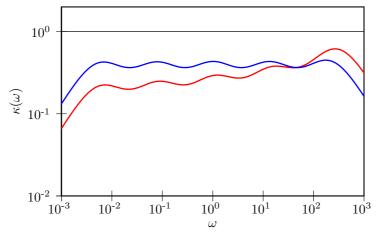
• Drift matrix A_p :

```
 \begin{pmatrix} 1.6938 \times 10^{+02} & 4.8353 \times 10^{-02} & 5.5827 \times 10^{-01} & -7.6479 \times 10^{+00} & 1.3471 \times 10^{+02} \\ -4.8949 \times 10^{-03} & 5.4467 \times 10^{-03} & -3.3300 \times 10^{-02} & -7.4147 \times 10^{-02} & -3.8469 \times 10^{-02} \\ 5.8084 \times 10^{-01} & 3.3300 \times 10^{-02} & 2.6315 \times 10^{-01} & 9.1556 \times 10^{-02} & 1.6091 \times 10^{-02} \\ -7.6198 \times 10^{+00} & 7.4147 \times 10^{-02} & -9.1556 \times 10^{-02} & 5.3125 \times 10^{+00} & 2.8448 \times 10^{-02} \\ 1.3503 \times 10^{+02} & 3.8469 \times 10^{-02} & -1.6091 \times 10^{-02} & -2.8448 \times 10^{-02} & 1.1579 \times 10^{+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) : $3.3945 \times 10^{+01}$