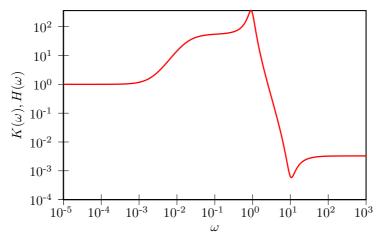
GENERALIZED LANGEVIN EQUATION ANALYTICS

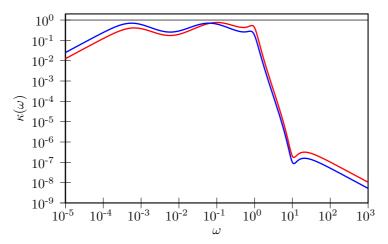
• Drift matrix A_p :

```
 \begin{pmatrix} 5.2233 \times 10^{-06} & 7.0215 \times 10^{-02} & 3.5706 \times 10^{-01} & 2.5204 \times 10^{-01} & 2.5705 \times 10^{-03} \\ -7.0225 \times 10^{-02} & 1.9888 \times 10^{-04} & -9.8350 \times 10^{-03} & 1.4206 \times 10^{-01} & 1.8597 \times 10^{-02} \\ -3.5706 \times 10^{-01} & 9.8350 \times 10^{-03} & 8.0593 \times 10^{-05} & 7.8942 \times 10^{-01} & -7.3145 \times 10^{-01} \\ -2.5202 \times 10^{-01} & -1.4206 \times 10^{-01} & -7.8942 \times 10^{-01} & 8.9320 \times 10^{-04} & 1.9986 \times 10^{-01} \\ -7.5781 \times 10^{-03} & -1.8597 \times 10^{-02} & 7.3145 \times 10^{-01} & -1.9986 \times 10^{-01} & 1.2510 \times 10^{+00} \end{pmatrix}
```

- Fluctuation-Dissipation theorem is enforced, $C_p = k_B T$
- 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) : $6.2941 \times 10^{+02}$