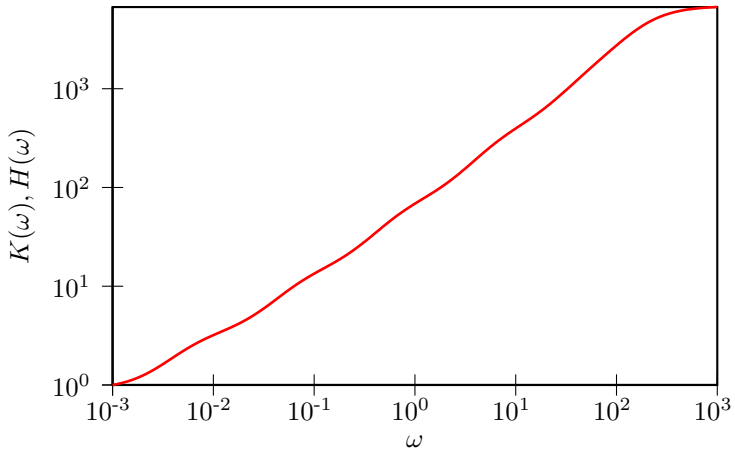
Generalized Langevin Equation analytics

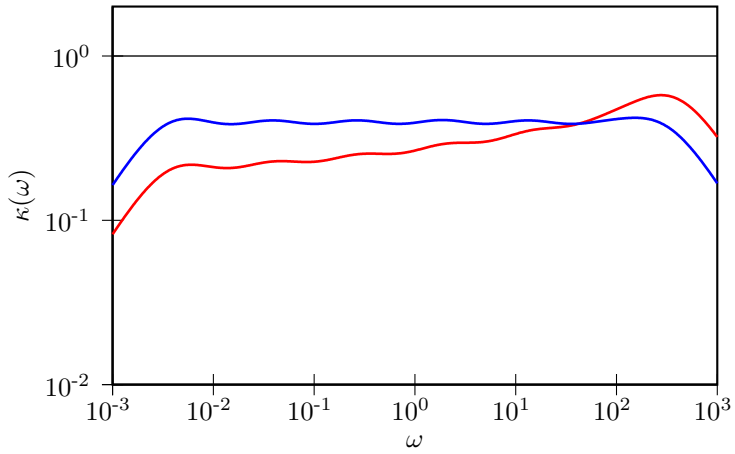
- **Drift matrix $\mathbf{A}_p$:**

$$\begin{pmatrix}
1.7696\times10^{+02} & 1.5711\times10^{-01} & 6.8842\times10^{-02} & -7.6673\times10^{-02} & 7.2000\times10^{+00} & 3.4609\times10^{+01} & 1.5389\times10^{+02} \\
-1.3076\times10^{-01} & 2.7278\times10^{-03} & -1.9702\times10^{-03} & -2.0747\times10^{-02} & 7.8762\times10^{-02} & -1.7255\times10^{-01} & -1.3902\times10^{-01} \\
1.8199\times10^{-01} & 1.9702\times10^{-03} & 5.1626\times10^{-02} & 5.7219\times10^{-02} & 6.3288\times10^{-02} & 2.6117\times10^{-01} & -1.8420\times10^{-01} \\
-1.7042\times10^{+00} & 2.0747\times10^{-02} & -5.7219\times10^{-02} & 5.5460\times10^{-01} & 4.0932\times10^{-01} & -9.9655\times10^{-01} & -4.5827\times10^{-01} \\
6.6894\times10^{+00} & -7.8762\times10^{-02} & -6.3288\times10^{-02} & -4.0932\times10^{-01} & 5.7628\times10^{+00} & 3.7775\times10^{-01} & -1.1543\times10^{+00} \\
3.5975\times10^{+01} & 1.7255\times10^{-01} & -2.6117\times10^{-01} & 9.9655\times10^{-01} & -3.7775\times10^{-01} & 4.2715\times10^{+01} & 3.2489\times10^{+00} \\
1.5042\times10^{+02} & 1.3902\times10^{-01} & 1.8420\times10^{-01} & 4.5827\times10^{-01} & 1.1543\times10^{+00} & -3.2489\times10^{+00} & 1.6820\times10^{+02}
\end{pmatrix}$$

- **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. $(mD/k_B T)$:** $4.2897 \times 10^{+01}$