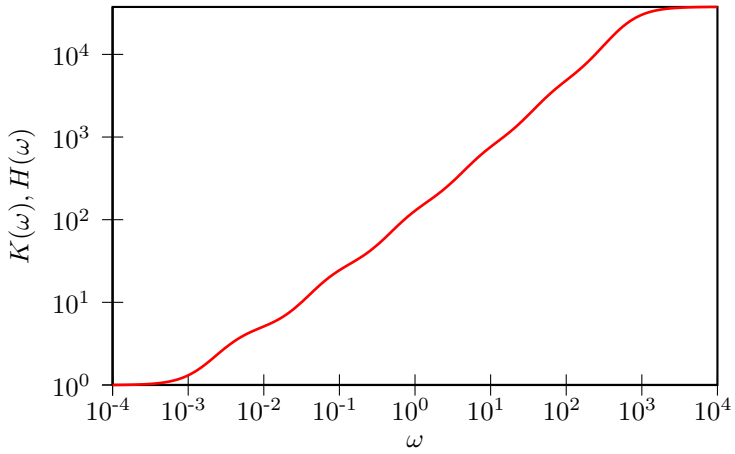
Generalized Langevin Equation analytics

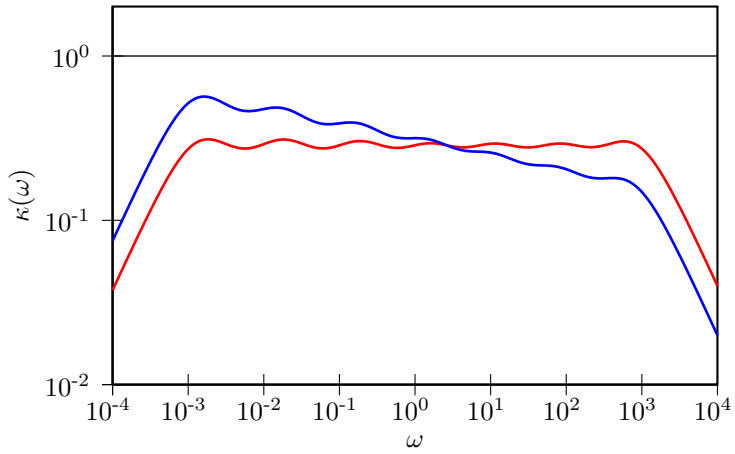
- **Drift matrix $\mathbf{A}_p$:**

$$\begin{pmatrix}
2.0035\times10^{+02} & 1.1952\times10^{-02} & -1.5016\times10^{-01} & 7.7803\times10^{-01} & -4.7154\times10^{+00} & -3.3694\times10^{+01} & 3.0879\times10^{+02} \\
2.9878\times10^{-03} & 2.9730\times10^{-03} & 2.1648\times10^{-03} & 8.3897\times10^{-03} & 3.7184\times10^{-02} & -5.6000\times10^{-02} & -2.7032\times10^{-02} \\
-8.3151\times10^{-03} & -2.1648\times10^{-03} & 5.5459\times10^{-02} & -4.9952\times10^{-02} & 4.5383\times10^{-02} & -2.8879\times10^{-01} & -3.9104\times10^{-02} \\
6.3664\times10^{-01} & -8.3897\times10^{-03} & 4.9952\times10^{-02} & 7.2790\times10^{-01} & -6.8328\times10^{-04} & 7.9944\times10^{-02} & 1.2180\times10^{-01} \\
-5.0272\times10^{+00} & -3.7184\times10^{-02} & -4.5383\times10^{-02} & 6.8328\times10^{-04} & 6.5666\times10^{+00} & 5.3979\times10^{-02} & -1.6353\times10^{-01} \\
-3.3925\times10^{+01} & 5.6000\times10^{-02} & 2.8879\times10^{-01} & -7.9944\times10^{-02} & -5.3979\times10^{-02} & 5.5800\times10^{+01} & 2.2778\times10^{-01} \\
3.0756\times10^{+02} & 2.7032\times10^{-02} & 3.9104\times10^{-02} & -1.2180\times10^{-01} & 1.6353\times10^{-01} & -2.2778\times10^{-01} & 5.4139\times10^{+02}
\end{pmatrix}$$

- **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. $(mD/k_B T)$:** $1.8847 \times 10^{+02}$