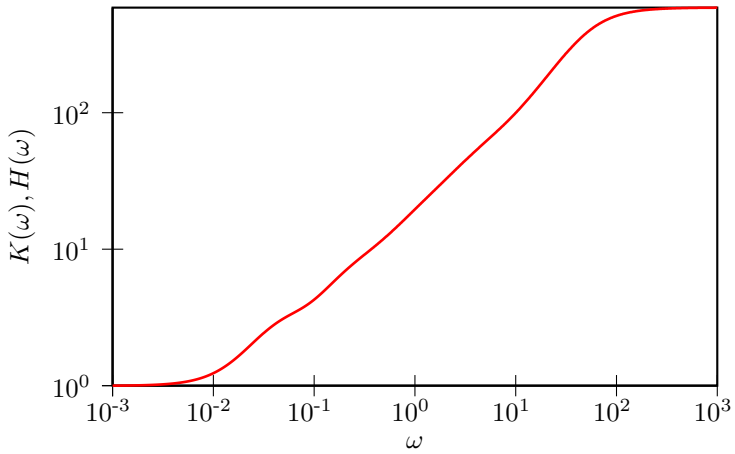
Generalized Langevin Equation analytics

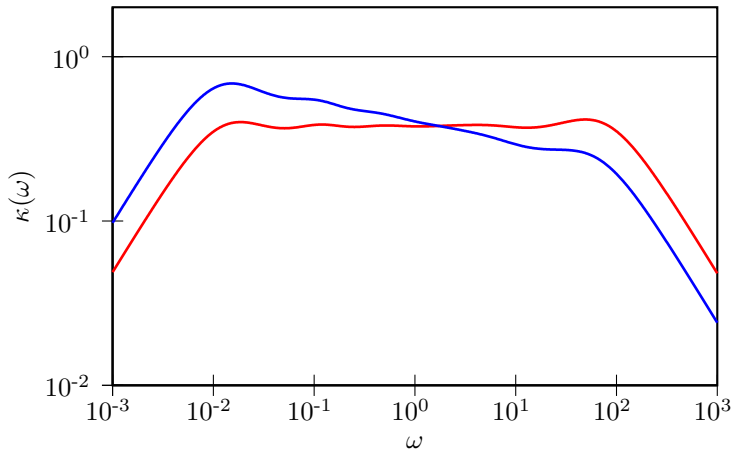
- **Drift matrix $\mathbf{A}_p$:**

$$\begin{pmatrix}
2.4114\times10^{+01} & -5.1604\times10^{-02} & 5.6487\times10^{-02} & 2.3505\times10^{-01} & -7.1305\times10^{-01} & -2.2169\times10^{+00} & 6.8519\times10^{+00} & 2.7710\times10^{+01} & -4.32 \\
-2.5600\times10^{-02} & 3.9543\times10^{-02} & -1.0852\times10^{-02} & 3.6017\times10^{-02} & -8.1531\times10^{-02} & 7.6914\times10^{-02} & 1.6453\times10^{-02} & -3.6992\times10^{-04} & 1.33 \\
3.7970\times10^{-02} & 1.0852\times10^{-02} & 3.3501\times10^{-02} & 2.7454\times10^{-02} & -5.7248\times10^{-02} & 1.0833\times10^{-01} & 1.1768\times10^{-01} & -4.8394\times10^{-02} & -4.93 \\
1.3226\times10^{-01} & -3.6017\times10^{-02} & -2.7454\times10^{-02} & 1.5640\times10^{-01} & 2.2280\times10^{-03} & 1.0328\times10^{-01} & -1.1758\times10^{-02} & 2.8335\times10^{-02} & 8.52 \\
-8.0601\times10^{-01} & 8.1531\times10^{-02} & 5.7248\times10^{-02} & -2.2280\times10^{-03} & 9.6129\times10^{-01} & 3.5248\times10^{-02} & -2.4283\times10^{-01} & 1.0591\times10^{-01} & 6.54 \\
-2.5127\times10^{+00} & -7.6914\times10^{-02} & -1.0833\times10^{-01} & -1.0328\times10^{-01} & -3.5248\times10^{-02} & 3.4844\times10^{+00} & -1.5222\times10^{-01} & 1.9238\times10^{-01} & -2.27 \\
5.6584\times10^{+00} & -1.6453\times10^{-02} & -1.1768\times10^{-01} & 1.1758\times10^{-02} & 2.4283\times10^{-01} & 1.5222\times10^{-01} & 1.5451\times10^{+01} & -1.1284\times10^{-01} & 4.29 \\
2.9735\times10^{+01} & 3.6992\times10^{-04} & 4.8394\times10^{-02} & -2.8335\times10^{-02} & -1.0591\times10^{-01} & -1.9238\times10^{-01} & 1.1284\times10^{-01} & 4.3485\times10^{+01} & -2.00 \\
-6.0937\times10^{+00} & -1.3356\times10^{-02} & 4.9304\times10^{-01} & -8.5247\times10^{-01} & -6.5404\times10^{-02} & 2.2796\times10^{-01} & -4.2993\times10^{+00} & 2.0044\times10^{+00} & 3.19
\end{pmatrix}$$

- **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. ($mD/k_B T$):** $2.4504 \times 10^{+01}$