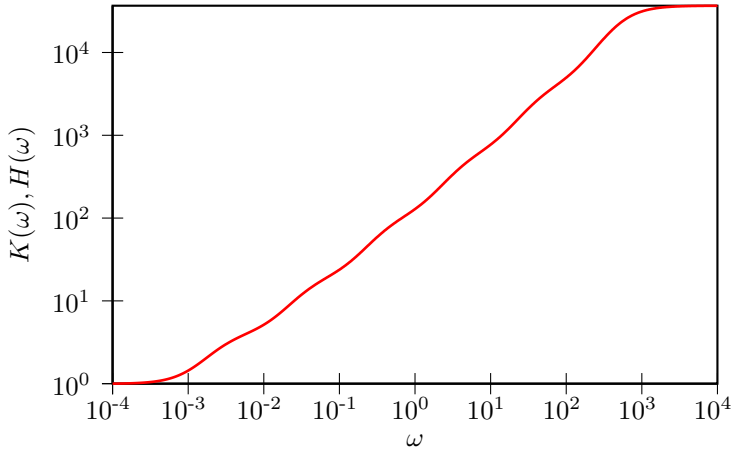
Generalized Langevin Equation analytics

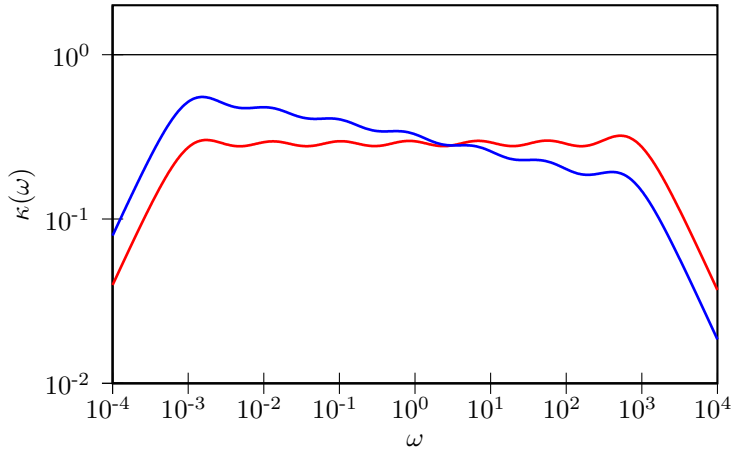
- **Drift matrix $\mathbf{A}_p$:**

$$\begin{pmatrix}
1.8549\times10^{+02} & 5.0092\times10^{-03} & 5.0998\times10^{-02} & 3.6860\times10^{-01} & -2.9316\times10^{+00} & -2.3987\times10^{+01} & 2.7202\times10^{+02} & -3.9901\times10^{-01} & -6.9878 \\
7.3296\times10^{-03} & 2.3786\times10^{-03} & -5.5136\times10^{-04} & 2.2265\times10^{-03} & -2.8901\times10^{-03} & 8.0701\times10^{-03} & 4.3639\times10^{-03} & -4.1452\times10^{-03} & 4.2404 \\
4.5461\times10^{-02} & 5.5136\times10^{-04} & 3.1841\times10^{-02} & -4.5089\times10^{-04} & 1.3275\times10^{-03} & 9.5670\times10^{-04} & 6.3402\times10^{-04} & -2.0831\times10^{-01} & -1.1196 \\
3.9382\times10^{-01} & -2.2265\times10^{-03} & 4.5089\times10^{-04} & 3.5139\times10^{-01} & -4.9988\times10^{-04} & 2.2498\times10^{-03} & 1.9836\times10^{-03} & -1.0666\times10^{-01} & -1.4783 \\
-3.0820\times10^{+00} & 2.8901\times10^{-03} & -1.3275\times10^{-03} & 4.9988\times10^{-04} & 3.6422\times10^{+00} & -6.0081\times10^{-04} & 1.0363\times10^{-03} & -1.8193\times10^{+00} & -9.2676 \\
-2.4307\times10^{+01} & -8.0701\times10^{-03} & -9.5670\times10^{-04} & -2.2498\times10^{-03} & 6.0081\times10^{-04} & 3.6546\times10^{+01} & 1.0584\times10^{-03} & -1.4157\times10^{+00} & 5.0496 \\
2.7247\times10^{+02} & -4.3639\times10^{-03} & -6.3402\times10^{-04} & -1.9836\times10^{-03} & -1.0363\times10^{-03} & -1.0584\times10^{-03} & 4.4502\times10^{+02} & -2.4534\times10^{+00} & -6.1816 \\
2.3934\times10^{-01} & 4.1452\times10^{-03} & 2.0831\times10^{-01} & 1.0666\times10^{-01} & 1.8193\times10^{+00} & 1.4157\times10^{+00} & 2.4534\times10^{+00} & 2.2197\times10^{+03} & 1.7372 \\
3.1576\times10^{+00} & -4.2404\times10^{-01} & 1.1196\times10^{+00} & 1.4783\times10^{-01} & 9.2676\times10^{-01} & -5.0496\times10^{-01} & 6.1816\times10^{-01} & -1.7372\times10^{+03} & 1.7796
\end{pmatrix}$$

- **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. $(mD/k_B T)$:** $1.9917 \times 10^{+02}$