[nex55] **Velocity autocorrelation function of Brownian particle.**

Calculate the velocity autocorrelation function $\langle v(t_1)v(t_2)\rangle_0$ of a Brownian particle for $t_1 > t_2$ as a conditional average from the formal solution

$$v(t) = v_0 e^{-\gamma t/m} + \frac{1}{m}\int_0^t dt'\, e^{-(\gamma/m)(t-t')} f(t')$$

of the Langevin equation with a white noise random force of intensity I_w.