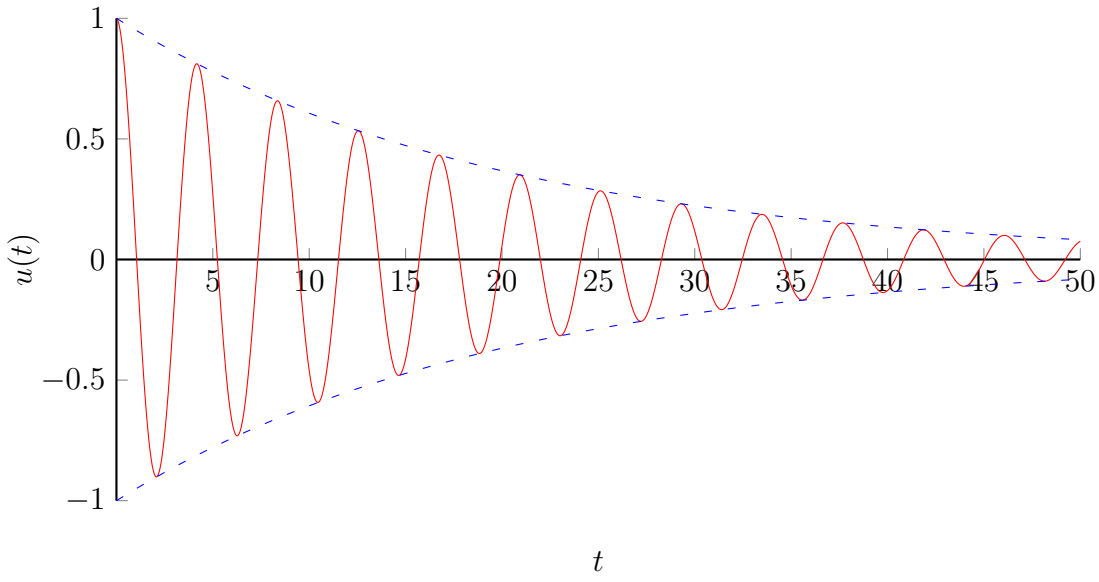
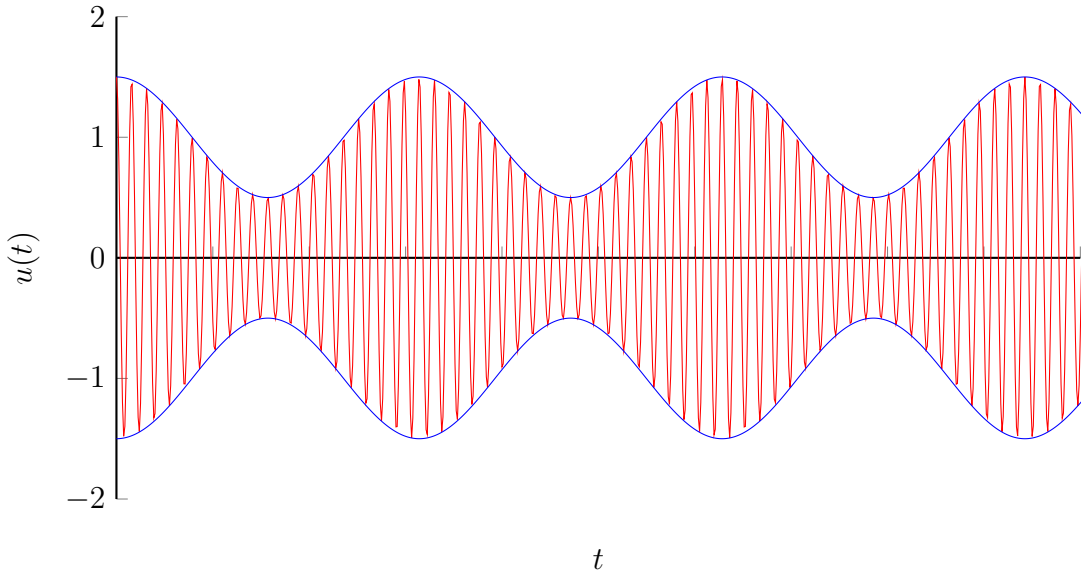
Exponential sinusiodal decay, function: $u(t) = \mathrm{e}^{-0.05t}\cos(1.5t)$, samples = 2001



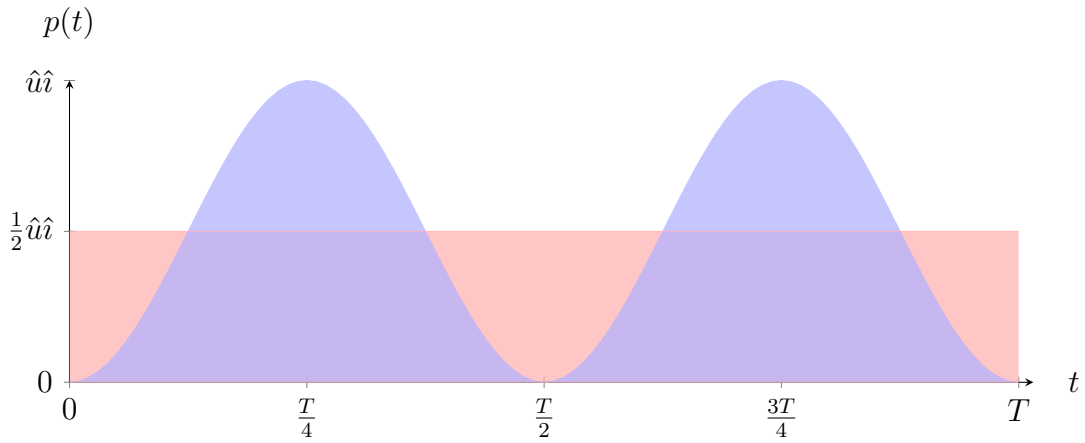
AM modulation, function: $u(t) = (1 + 0.5\cos t)\cdot\cos(20t)$, samples: 2001



Effective power: function: $p(t) = \hat{u}\hat{\imath}\sin^2\omega t$ $(\cos\varphi = 1)$, samples = 101

$$\begin{aligned} p(t) &= u(t)\cdot i(t) = \hat{u}\sin(\omega t)\cdot\hat{\imath}\sin(\omega t) \\ &= \hat{u}\hat{\imath}\sin^2(\omega t) \end{aligned}$$

$$\begin{aligned} P_{gem} &= \frac{\hat{u}\hat{\imath}}{T}\int_0^T \sin^2(\omega t)\,\mathrm{d}t \\ &= \frac{1}{2}\hat{u}\hat{\imath} \end{aligned}$$



Complex spiral, function: $\underline{z} = \mathrm{e}^{-0.05\varphi}(\cos\varphi + \mathrm{j}\sin\varphi)$, samples = 301