

$$5.18 \cdot \frac{k_x^2}{b} + \frac{k_y^2}{a} = 1$$

First, we can use a such pulse to drive the k -point to $k_x=b$ $k_y=0$, we can call it $k_A=(b,0)$

$$\begin{cases} k_x=b \\ k_y=0 \end{cases} \text{ so } \begin{cases} G_x = \frac{b}{\lambda T} \\ G_y = 0 \end{cases} \rightarrow \text{pre-pulse}$$

and finish the trajectory

$$\begin{cases} k_x = b \cos \omega t \\ k_y = a \sin \omega t \end{cases} \Rightarrow \begin{cases} r \int_0^t G_x dt = b \cos \omega t \\ r \int_0^t G_y dt = a \sin \omega t \end{cases}$$

$$\text{so } \begin{cases} G_x = -\frac{\omega b \sin \omega t}{r} \\ G_y = \frac{\omega a \cos \omega t}{r} \end{cases}$$

In spin-echo:

