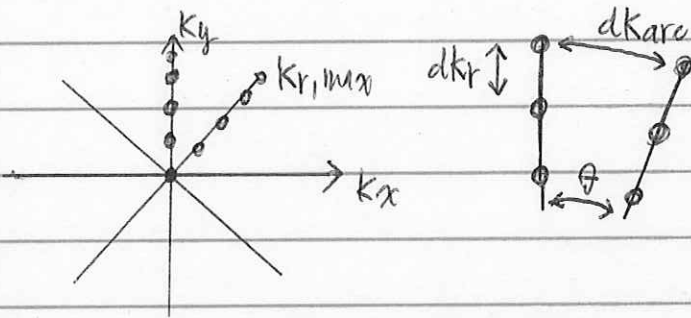
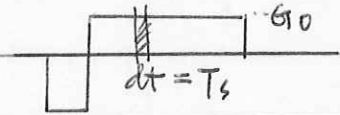


Radial sampling requirements



$$K(t) = \frac{r}{2\pi} \int_0^t G(\tau) d\tau$$

$$dk = \frac{r}{2\pi} G(t) dt$$



N_r points along each spoke

$$N_{sp} \text{ spokes} : \theta = \frac{\pi}{N_{sp}}$$

$$1. \text{ Need } dkr \leq \frac{1}{FOV} : \frac{r}{2\pi} G_0 \cdot T_s \leq \frac{1}{FOV} \quad \text{HW limits } \left\{ \begin{array}{l} G \\ SR \\ T_s \end{array} \right.$$

$$2. k_{r, \max} = \frac{N_r}{2} \times dkr$$

$$3. dk_{arc} = k_{r, \max} \times \theta = \frac{N_r}{2} \times dkr \times \frac{\pi}{N_{sp}} \leq dkr$$

$$\therefore N_{sp} \geq \frac{N_r}{2} \times \pi = 1.57 \times N_r$$

$$N_r = 256, N_{sp} = 403 \text{ spokes}$$

Recall: Direct FFT?