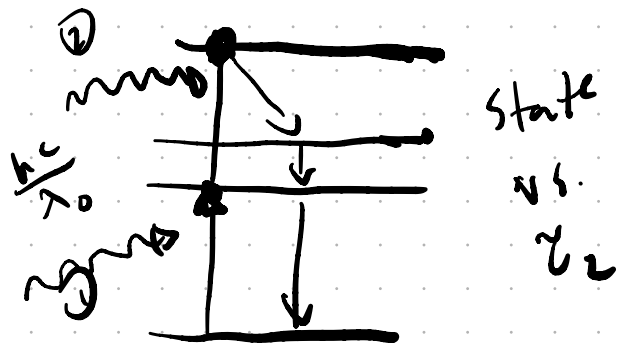
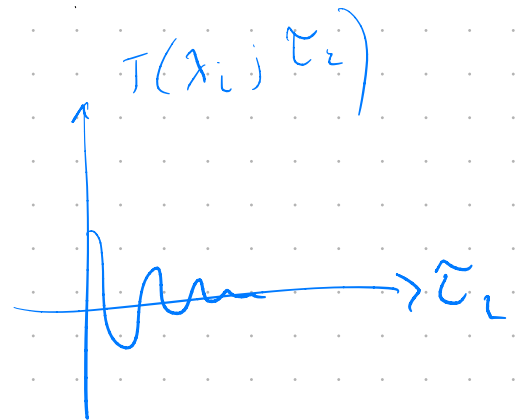
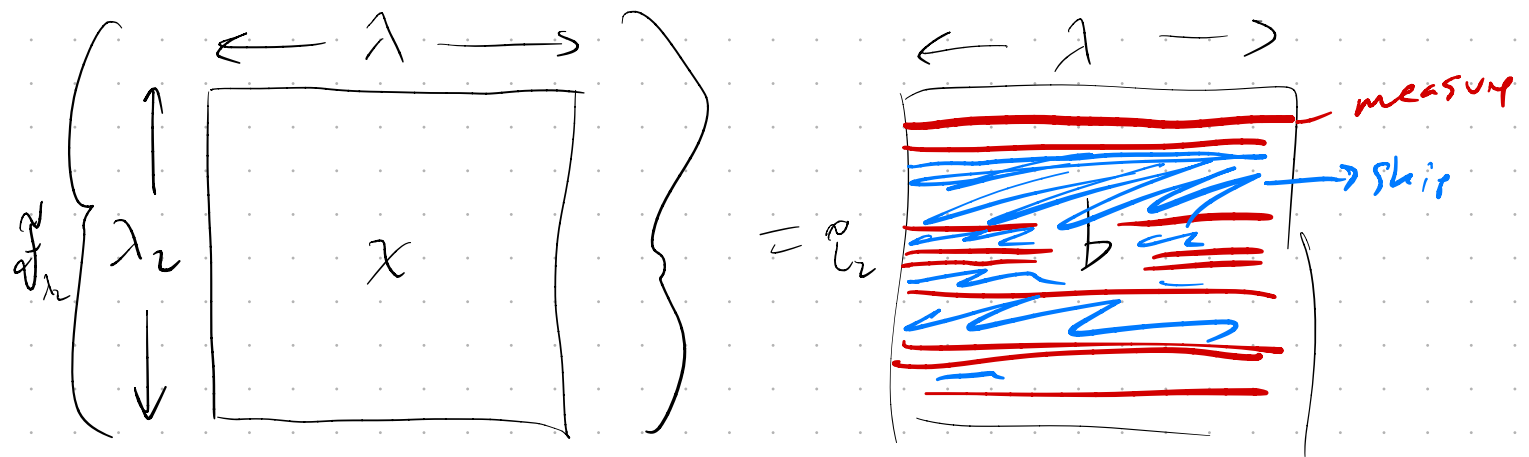


$$\Delta\lambda \propto \frac{1}{\Delta t}$$



$$\tilde{F}_{\tau_2} \{T(\lambda_1, \tau_2)\} = \tilde{T}(\lambda_1, \lambda_2)$$



$$Ax = b$$

$$A = F^{-1}$$

$$F^{-1}x = b$$

Fully sampled
in \mathbb{R}_2

$$\hat{x} = F_{\mathbb{R}_2} b$$

$$SF^{-1}x = b$$

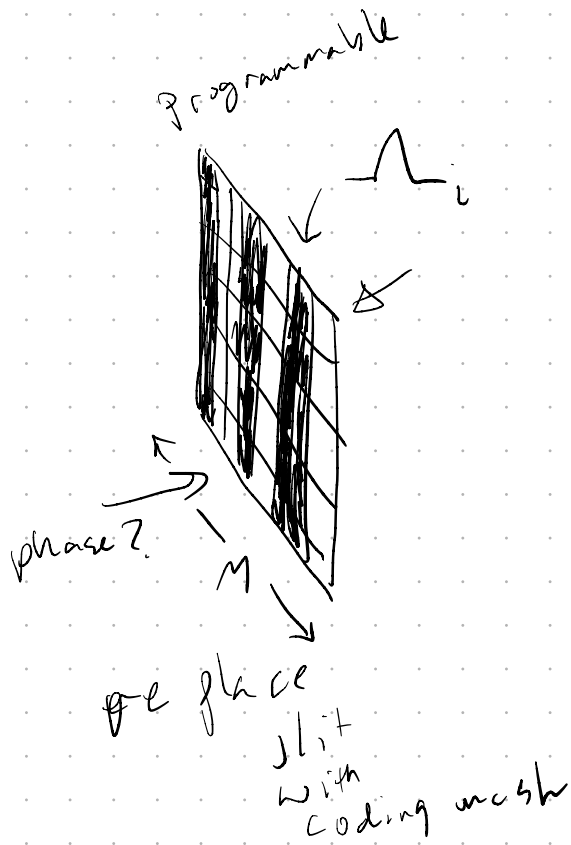
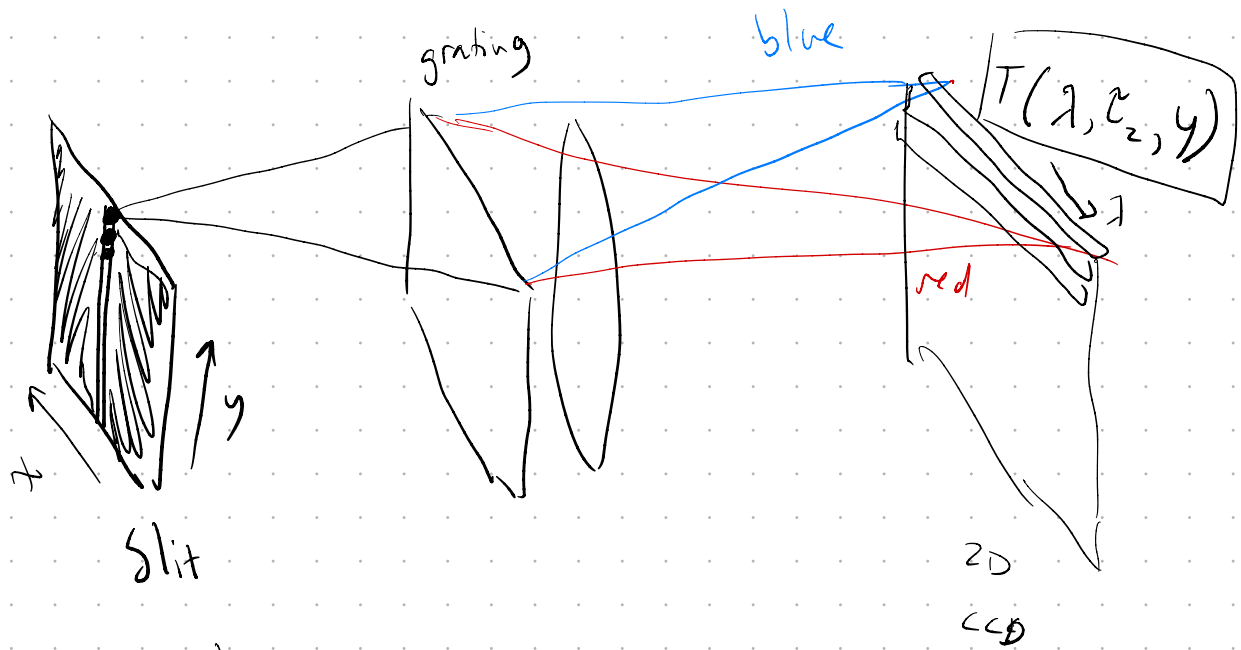
can't
invert

empty
col = skipped
sample

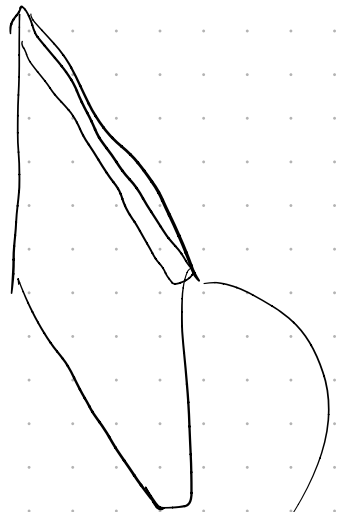
$$S = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 & \dots \\ 0 & 0 & 0 & 1 & 0 & \dots \\ 0 & 0 & 0 & 0 & 1 & \dots \\ 0 & 0 & 0 & 0 & 0 & \dots \end{bmatrix}$$

Compressed Sensing in \mathbb{R}_2

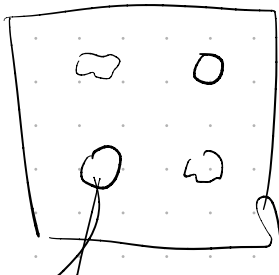
$$\underset{x}{\operatorname{argmin}} \frac{1}{2} \| SF^{-1}x - b \|_2^2 + \rho \| x \|_1$$



gratings



$$b_{ij} = \underbrace{\Lambda_i} * \underbrace{T(x\lambda; \lambda_j, y)}$$



$T(\lambda_1, \lambda_2)$

very sparse

Care about peak shape

