$$\underset{3\times \text{lnglnf}}{g} = \underset{3\times 3}{A} \cdot \underset{3\times \text{lnglnf}}{f} \qquad 3 \boxed{}$$

SDR, $\underline{SIR.}$

SNR

Signal Distorsion R

$$\begin{pmatrix} \textcircled{x} \\ x \\ x \\ x \end{pmatrix}$$

TF

$$= \begin{pmatrix} x_1 & \otimes \\ x_2 & \otimes \\ x_3 & \otimes \\ \vdots \\ x \\ x \end{pmatrix}$$

255×255

$$n \sim N(0, \sigma^2)$$

$$p(n) \propto \exp\left(-\frac{\|n\|_2^2}{\sigma^2}\right).$$

$$n = \frac{X - AS}{}$$

$$p(\alpha) \propto \exp\left(-\frac{\|\alpha\|}{\boxed{\lambda}}\right)$$
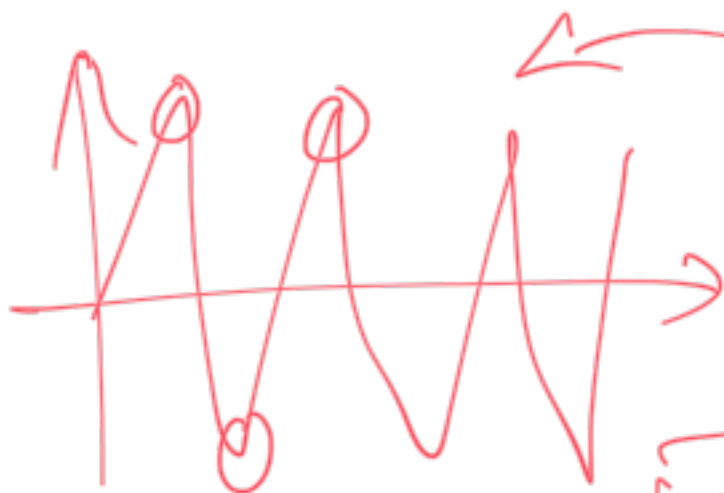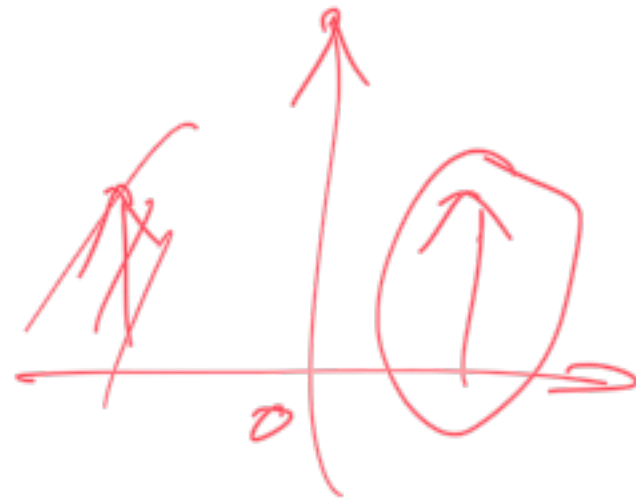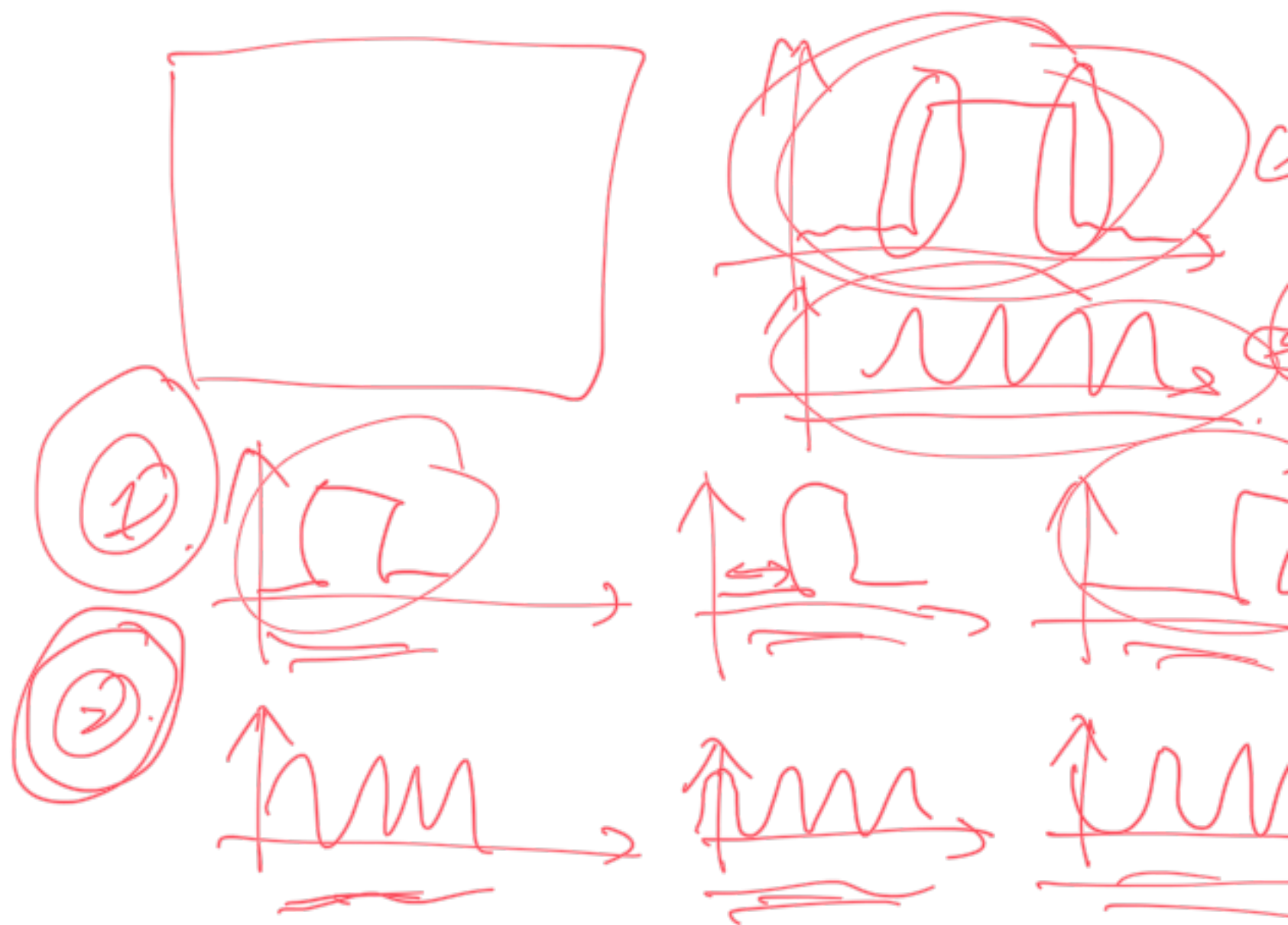
$$\alpha = S\Phi^T$$

MAP: Maximum a posteriori.

$$P\left(\frac{S}{=}\bigg|X\right) = \frac{P(X|S) \cdot P(S)}{\boxed{P(X)}}$$

$$\propto p(X|S) \cdot P(S).$$

$$\propto \exp\left(-\frac{\|X - AS\|_2^2}{\sigma^2}\right) \cdot \exp\left(-\frac{\|S\Phi^T\|_1}{\lambda}\right)$$

$$\propto \exp\left(-\left(\frac{\|X - AS\|_2^2}{\sigma^2} + \lambda \frac{\|S\Phi^T\|_1}{\lambda}\right)\right).$$

$$\overset{S^*}{=} \arg\max_{S} \; P(S|X)$$

$$\boxed{\kappa = \frac{\lambda}{\sigma^2}}$$