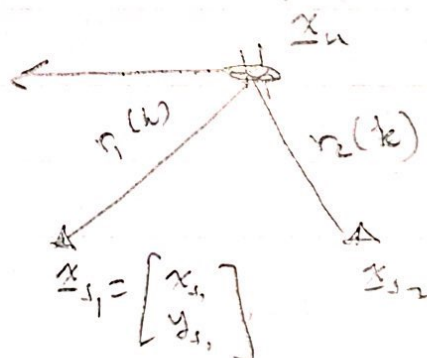


$$\underline{z} = \begin{bmatrix} r_1(0) \\ r_2(0) \\ r_1(1) \\ r_2(1) \\ \vdots \end{bmatrix}$$

$x(0), y(0)$ ?

$$\underline{x}_u = \begin{bmatrix} x_u \\ y_u \end{bmatrix}$$



$$\textcircled{1} \quad \underline{x}(k+1) = \underline{f}[\underline{x}(k)] + \underline{w}(k)$$

$$\underline{w}(k) \xrightarrow{\textcircled{i}} \underline{0} \\ \xrightarrow{\textcircled{ii}} \sim \mathcal{N}(\underline{0}, \mathbf{Q})$$

$$\textcircled{2} \quad \underline{z}(k) = \begin{bmatrix} r_1(k) \\ r_2(k) \end{bmatrix} = \begin{bmatrix} \sqrt{(x_u - x_{s1})^2 + (y_u - y_{s1})^2} \\ \vdots \end{bmatrix} + \underline{v} \quad v \sim \mathcal{N}(\underline{0}, \mathbf{R})$$

Q: Plot  $\hat{\underline{x}}(k|k)$  for  $\textcircled{i}$  &  $\textcircled{ii}$  & diff  $\hat{\underline{x}}(0|0)$   
 $P(0|0)$