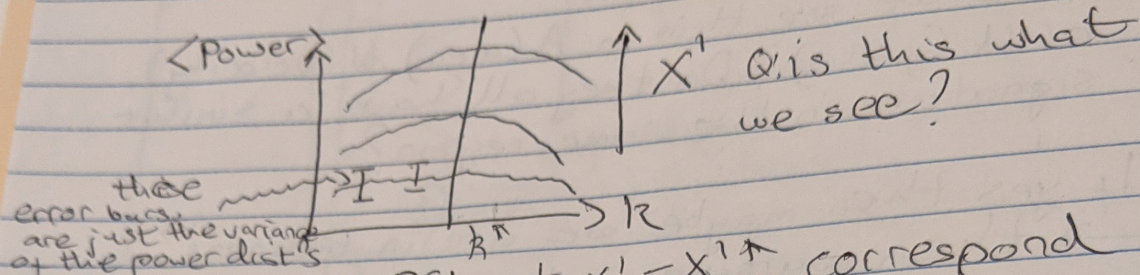


- So what do we plot?



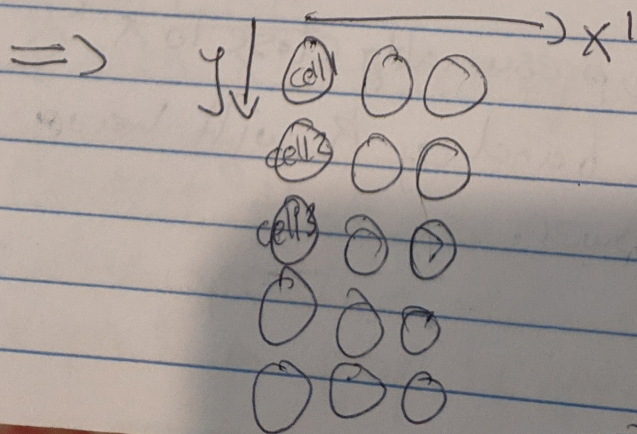
- Q: Does the PC1 at  $X' = X'^*$  correspond to the  $k^*$  seen through the Fourier analysis?

Q: What does this look like in the Sca mutant?

Q: What does the above plot look like for the different fields?

Q: Now what if we had high dimensional gene expression data, and wish to identify the genes participating in this patterning?

A: loosely, the genes involved should be most variable @  $X'^*$  @  $k^*$ .



$g_i(y)$

Power of  $g_i$  at  $k^*$  @  $X'^*$   
 $\rightarrow p_i^*$   
 $\rightarrow PC_i \rightarrow \text{Cov}(p_i^*, p_j^*)$