Strain Run Comparison

# Individual Strain Analysis

## Estimated b & Estimated p

If we fix p and do various runs where weights are estimated, are there more fluctuations in the weight parameters if p is fixed?

Wide variances in estimated b and p between strain runs reflect a large spread of data points and greater dynamics

* TFs that have little to no variance in estimated p and b (SKO, MSS, FHL) displayed not much change in expression levels

## Optimized Weights

CIN5

FHL1

PHD1

SKN7

# SKN7

Something odd is going on for SKN7

* Its dynamics are up in the graphical outputs of all the runs
* The output files for the runs, except wt, all strains, and two of the comparisons, have negative weights for its regulation

Believe it is the problem child for this network

It is difficult to discern between fluctuations due to the model vs. biology

* There seems to be a regulator missing for SKN7 due to the conflicting outputs from MATLAB

In looking at All-Strains W=1, SKN7 activates itself strongly

* However, in looking at deletion strain data, it seems to repress itself
* When altering the initial weights 0, randomly distributed, and 10, its weights go back to negative values 🡪 repression

Non-One Initial Weight Values