

- First we have to find out the size of a piece of our pathway pairs that runs in the cluster without memory problems. This will serve as the size of each piece later on in this pipeline
- $\begin{pmatrix} 2 \end{pmatrix}$  An R script that splits the total pathways into runnable pieces (based on the above)
- A bash script that fires a number of improved\_PCxN\_estimates01.R scripts simultaneously, each time using a different piece from step 2.
- (4) The basic improved\_PCxN\_estimates01.R script with some changes that deal with the different piece inputs.