INPUT DATA

UMI count matrix:

- Quality control
- Feature selection

Initialization



INITIALIZE PARAMETERS

Initial clusters:

- Randomly select one subject
- Run SHARP

Cell type effects (α_0):

• Estimated by the relative gene expressions in each initial cluster

Subject effects (δ):

• 10^{-5} by default

Cell type probability (π) :

1/K by default, where K is the number of cell types

EM-MM HYBRID ALGORITHM

