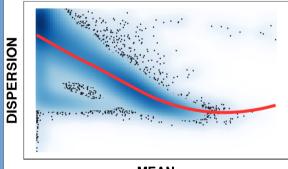
A ESTIMATION

RNA-seq read counts of bulk or single cells*

estimateParam()

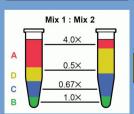
Distribution (Zero-Inflated) Negative Binomial



MEAN

plotParam()

evaluateDist()



estimateSpike()

*source: user-provided, recount data base, predefined examples

B SIMULATION

Differential Expression Settings

- Number of genes
- Percentage of DE genes
- Effect size (fold change)
- Number of simulations
- Batch effects

DESetup()

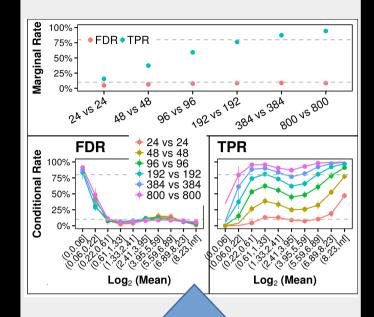
SimSetup()

Simulation Settings

- Number of replicates
- · Normalisation method
- DE method
- · Parallel computing
- Spike-ins
- Downsampling

simulateDE()

C EVALUATION



plotEvalDE()

Power Analysis

- MTC method
- Cutoff
- Stratification by moments
- Filtering

evaluateDE()

Simulation Analysis

evaluateSim()