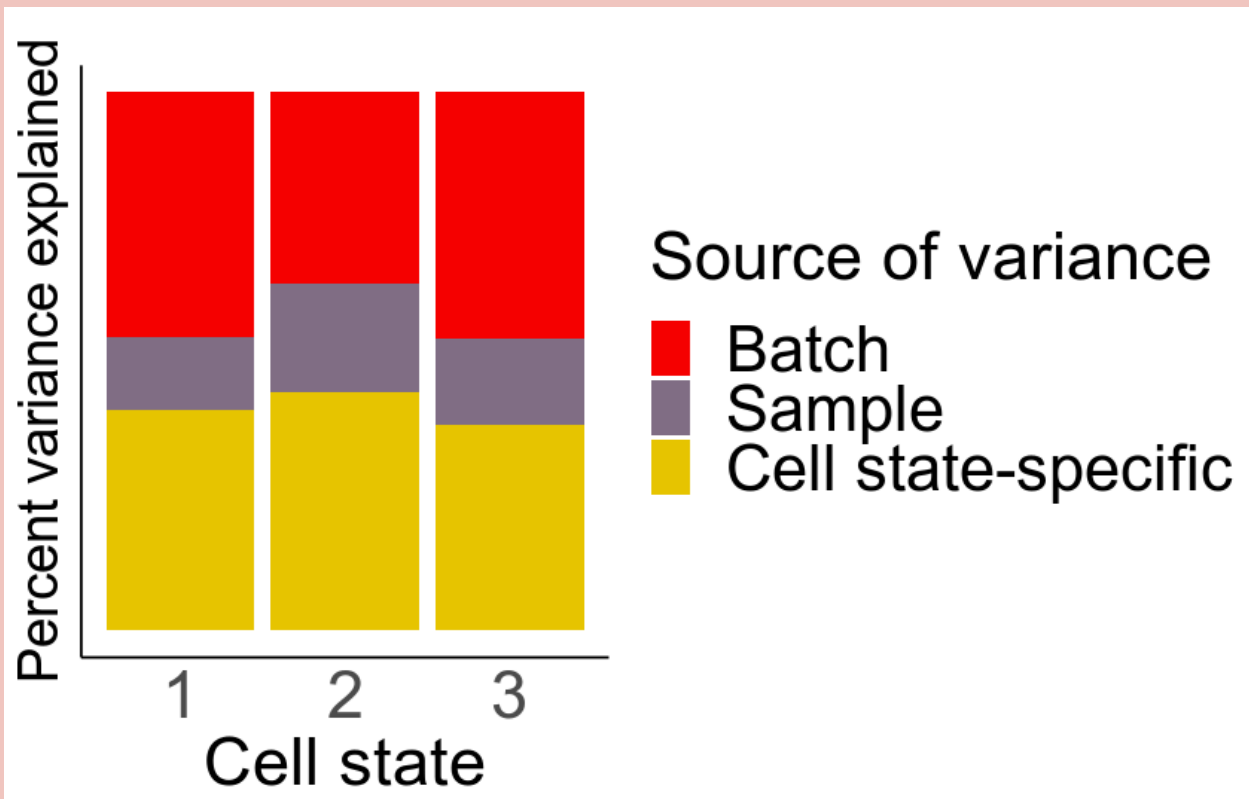
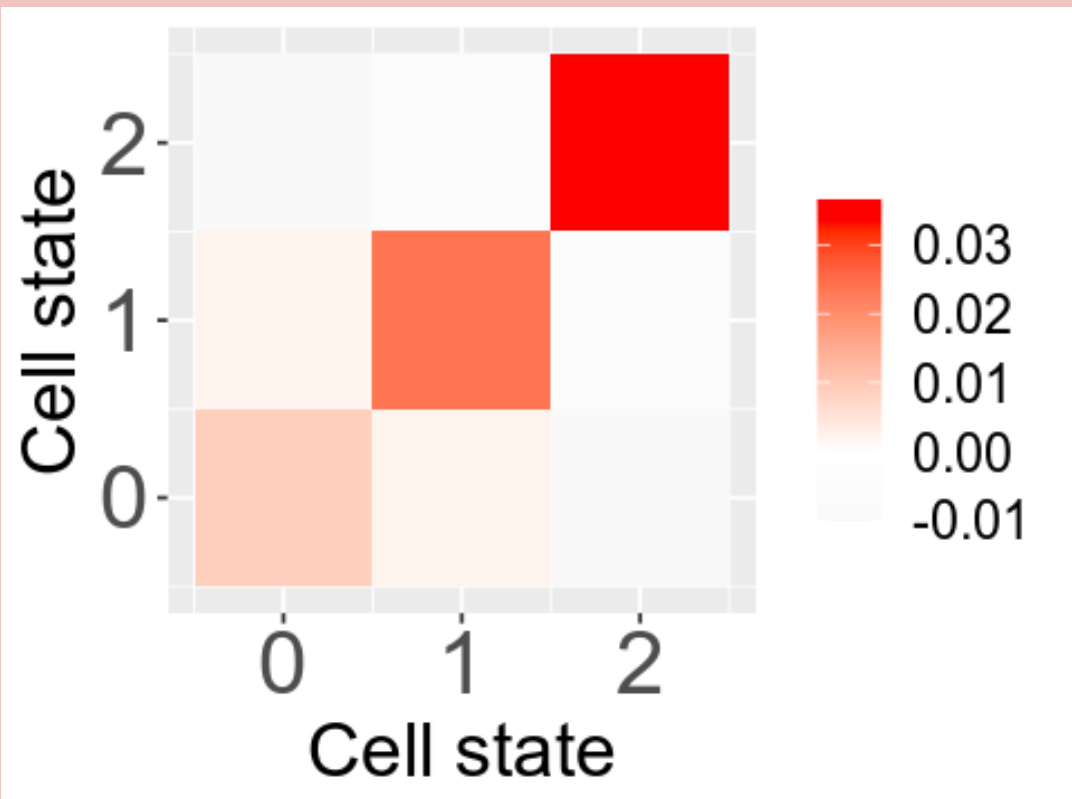


Data-driven parameter estimation

Estimate variance in principal component (PC) space

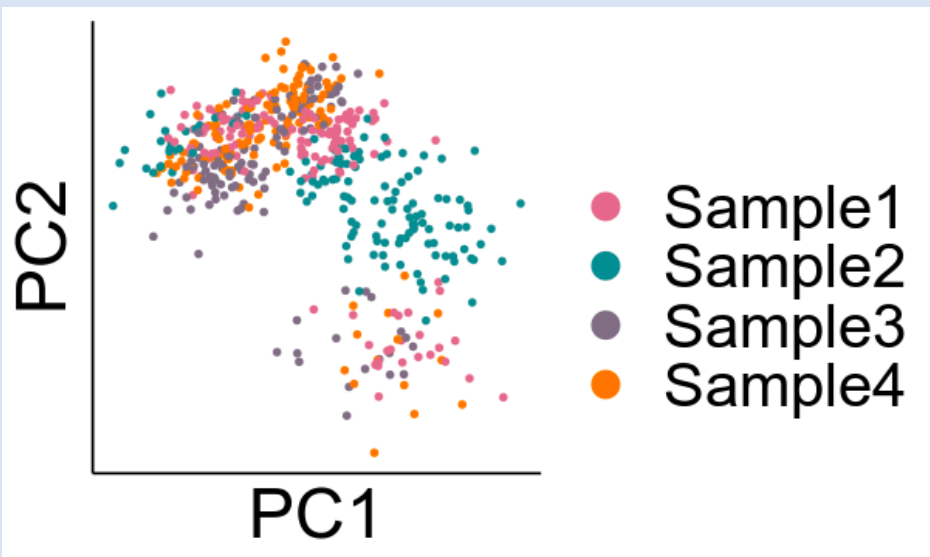


Calculate cell state frequency covariation matrix



Dataset generation

Simulate PC coordinates from estimated parameters



Simulate cell state frequencies and induce fold change in one cell state

	Condition	Cellstate0	Cellstate1	Cellstate2
Sample1	Control	18%	58%	24%
Sample2	Case	42%	24%	34%
Sample3	Control	28%	52%	20%
Sample4	Case	38%	32%	30%

Association testing and power estimation

Cluster simulated data and perform association testing to estimate power

