Phase I

Fit SBM to each network layer individually

$\longrightarrow$

Compute $\boldsymbol{\theta}(\hat{\mathbf{z}}, \hat{\boldsymbol{\pi}})$ for each layer

$\longrightarrow$

k-means cluster all $\boldsymbol{\theta}$ into S strata

Phase II

Iterate until convergence

Compute $\boldsymbol{\theta}_{(1)}(\hat{\boldsymbol{\tau}}^s, \hat{\boldsymbol{\pi}}^l)$

Compute $\boldsymbol{\theta}_{(2)}(\hat{\boldsymbol{\tau}}^s, \hat{\boldsymbol{\pi}}^l)$

Cluster layers into strata under $\boldsymbol{\theta}_{(1)}$ and $\boldsymbol{\theta}_{(2)}$

Update strata for unique combinations of $\boldsymbol{\theta}_{(1)}$ and $\boldsymbol{\theta}_{(2)}$