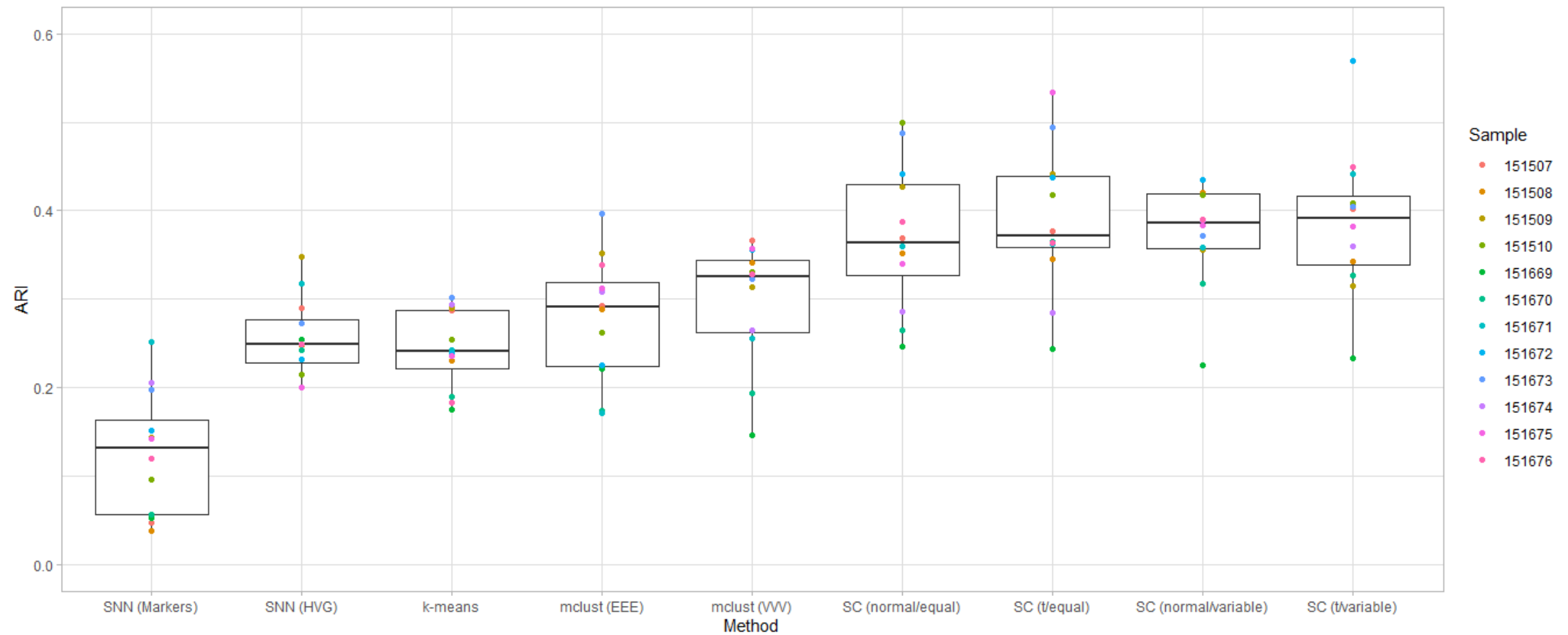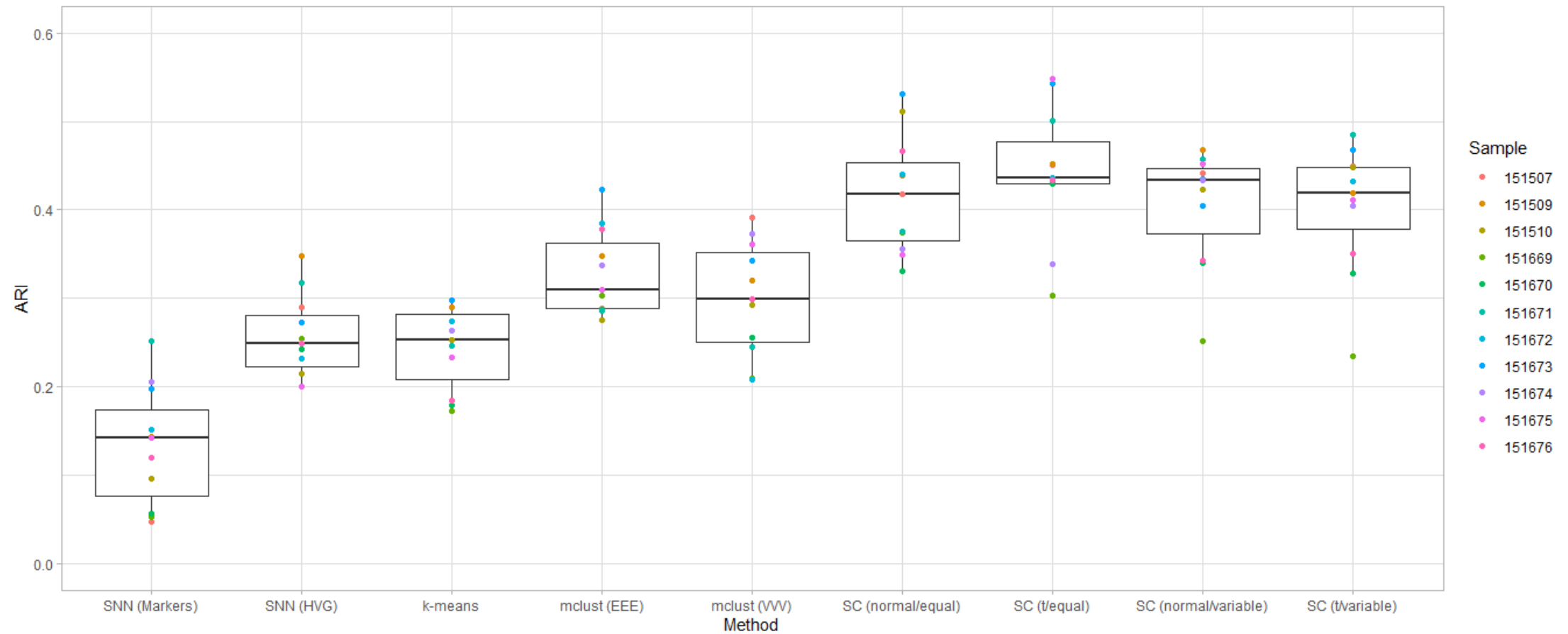# BayesSpace Update

6-5

DLPFC Spatial clustering on 10 PCs

DLPFC Spatial clustering on 15 PCs

Sample 151508

- Spatial clustering with *t*-distributed errors and variable cluster precision results in an error on iteration 224

  ```
  warning: chol(): given matrix is not symmetric
  Error in iterate_t_vvv(): Probabilities must be finite and non-negative!
  ```

Giotto workflow

- `createGiottoObject`
  - `raw_exprs = counts(sce)`
  - `spatial_locs = positions`
- `normalizeGiotto`
- `calculateHVG`
- `runPCA`
- `createSpatialNetwork`
  - `maximum_distance_delaunay = 9`
- `binSpect` (calculate spatially expressed genes)
- `doHMRF`
  - `k`
  - `dimensions_to_use = 1:10`
  - `betas`
- `viewHMRF`