Diffusion-Map-recap

immediate

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A short version to achieve the above is by using the preprocessed version of the dataset provided with this package. data(guo) is already preprocessed (using the method first mentioned), has its threshold set to a constant 15 and is ready to use. Since the platform's maximum amplification cycles are 40, that number can be used as upper border of the uncertainty range.

In [2]: library(destiny)
    data(guo)

It can be used directly for diffusion map creation:

In [3]: dm_guo <- DiffusionMap(guo, verbose = FALSE,
                        censor.val = 15, censor.range = c(15, 40))
    dm_guo

DiffusionMap (20 Diffusion components and 428 samples)
    eigenvalues: num [1:20] 0.955 0.847 0.784 0.764 0.687 ... 
    eigenvectors: num [1:428, 1:20] 0.119 0.117 0.104 0.111 0.116 ... 
      .colnames: chr [1:20] "DC1" "DC2" "DC3" "DC4" ...
    optimal_sigma: num [1:428] 7.41 7.56 9.09 6.62 6.29 ... 
    distance: chr "euclidean"

In [4]: plot(dm_guo, pch = 20)
using the annotation shows that the approximation worked

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In [5]: palette(cube_helix(6))
   plot(dm_guo, col_by = 'num_cells', pch = 20,
        legend_main = 'Cell stage')
```