MP2

Question a

Top most eigenvalue is **69.3888**

Question b

Top 5 eigenvectors' index are:
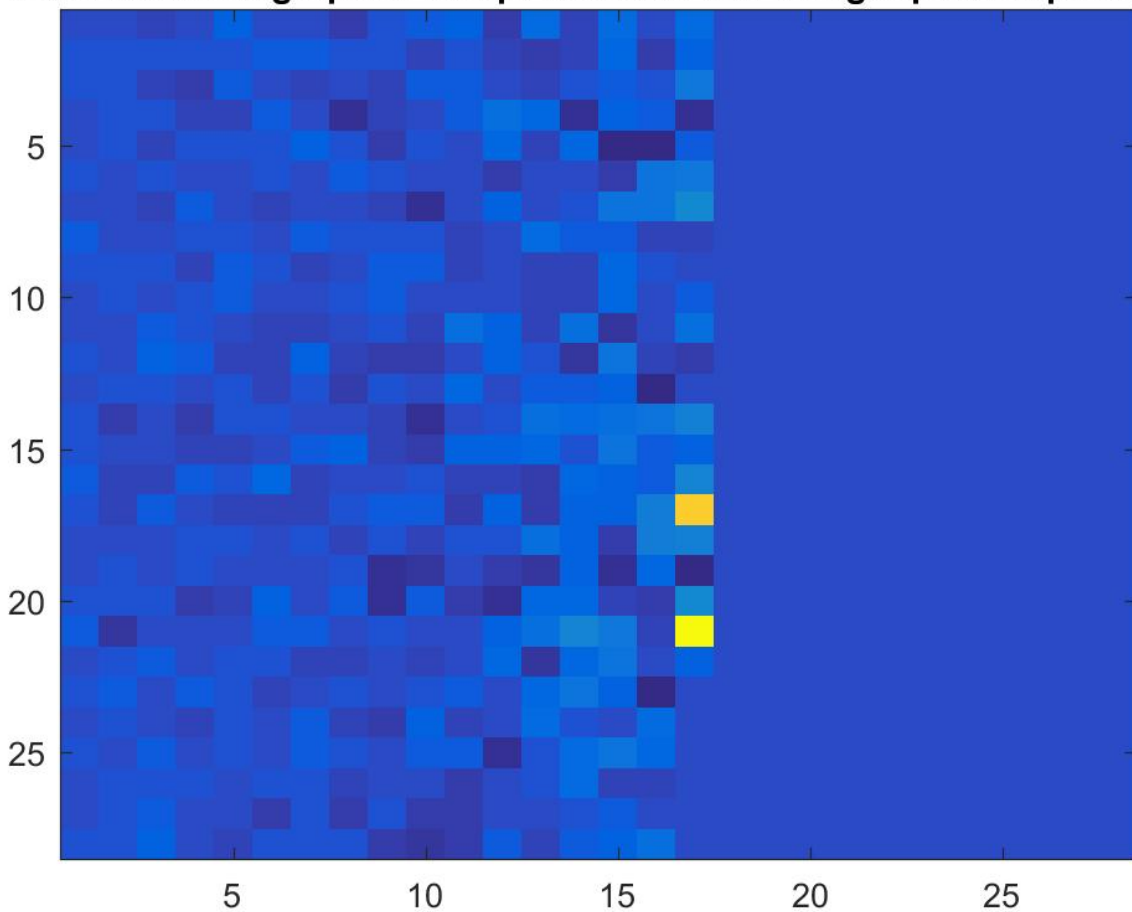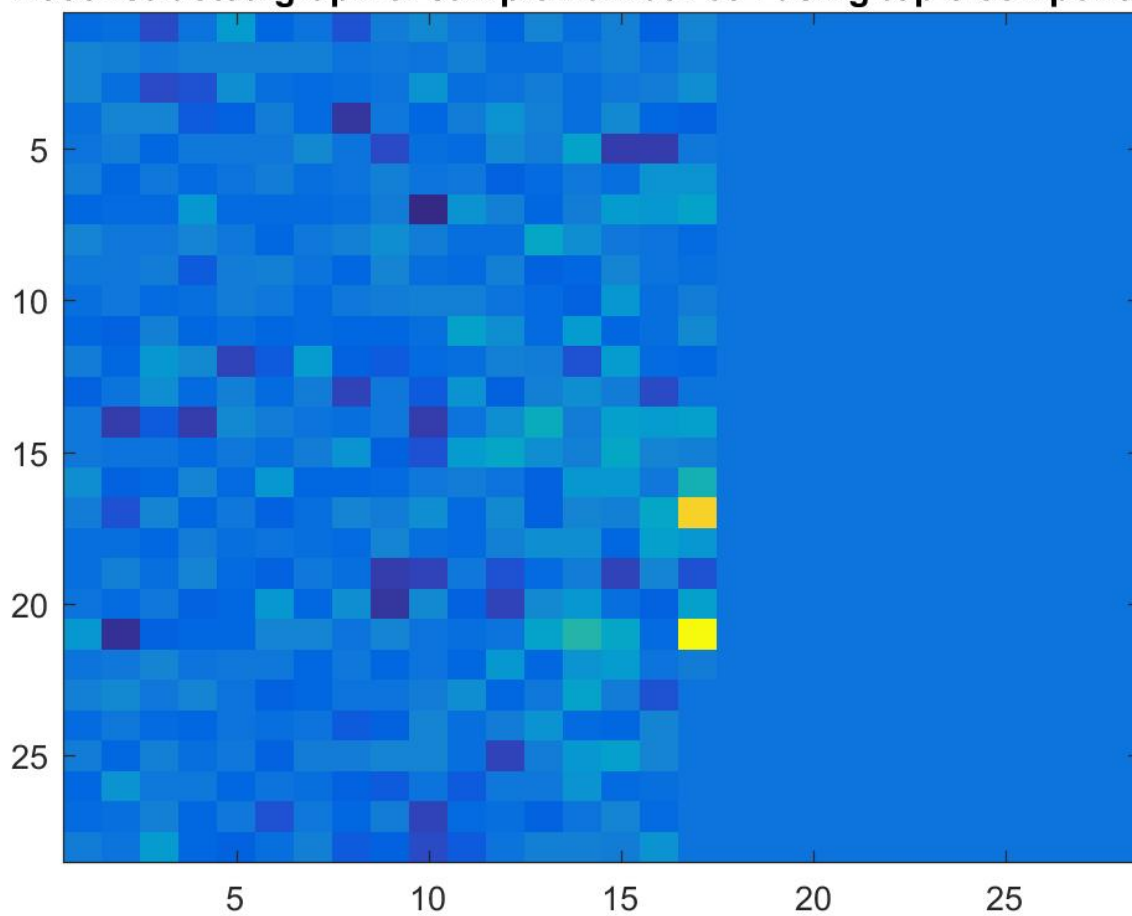
667 161 629 664 131
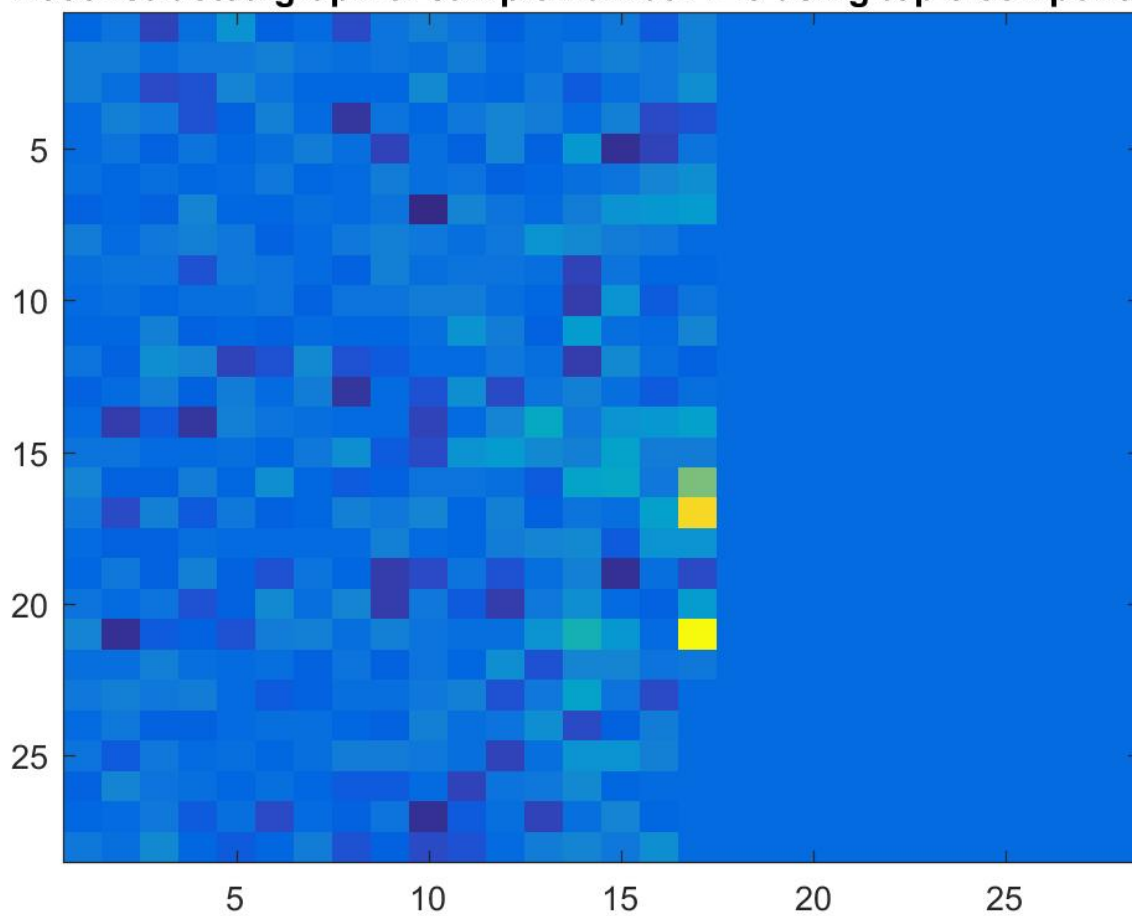
(called "Index" in the code)
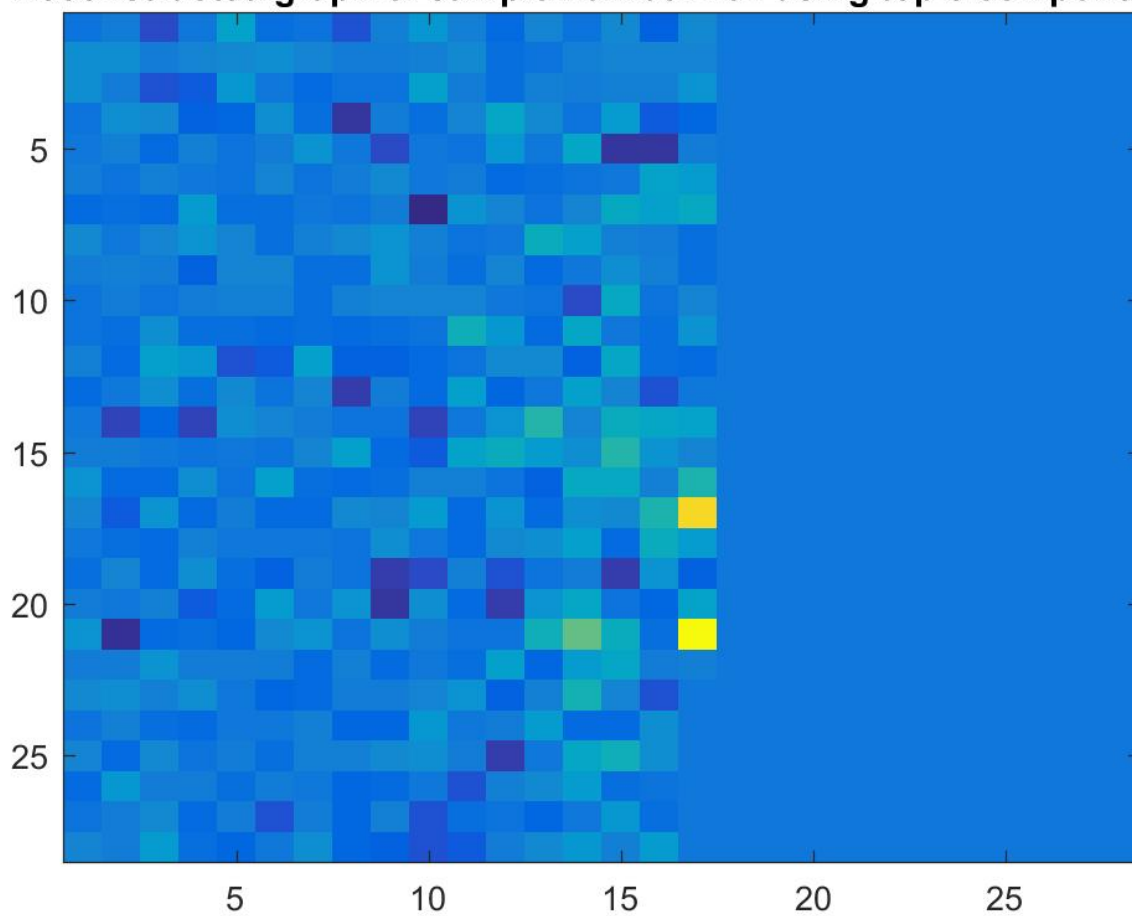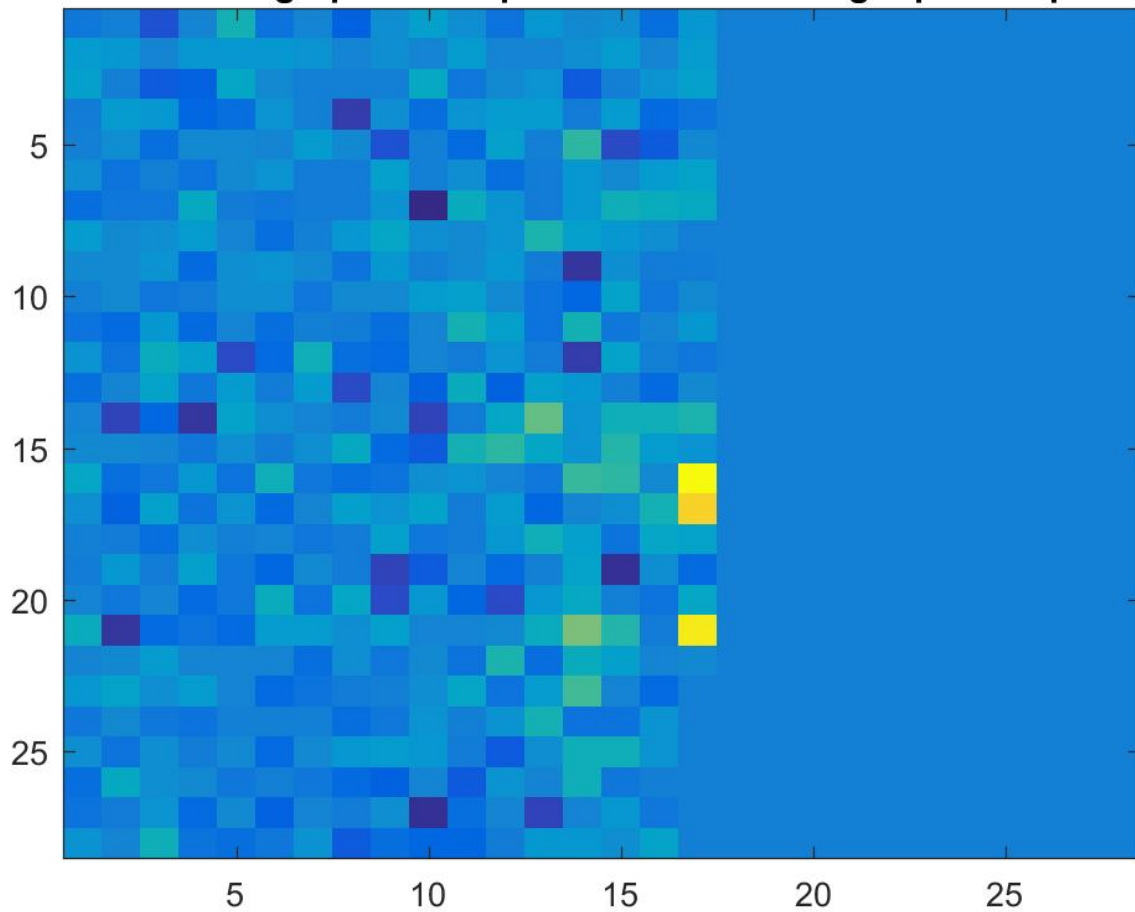
5 random sample numbers are:

950,634,748, 201,262

Reconstructed graph of sample number 950 using top 5 components

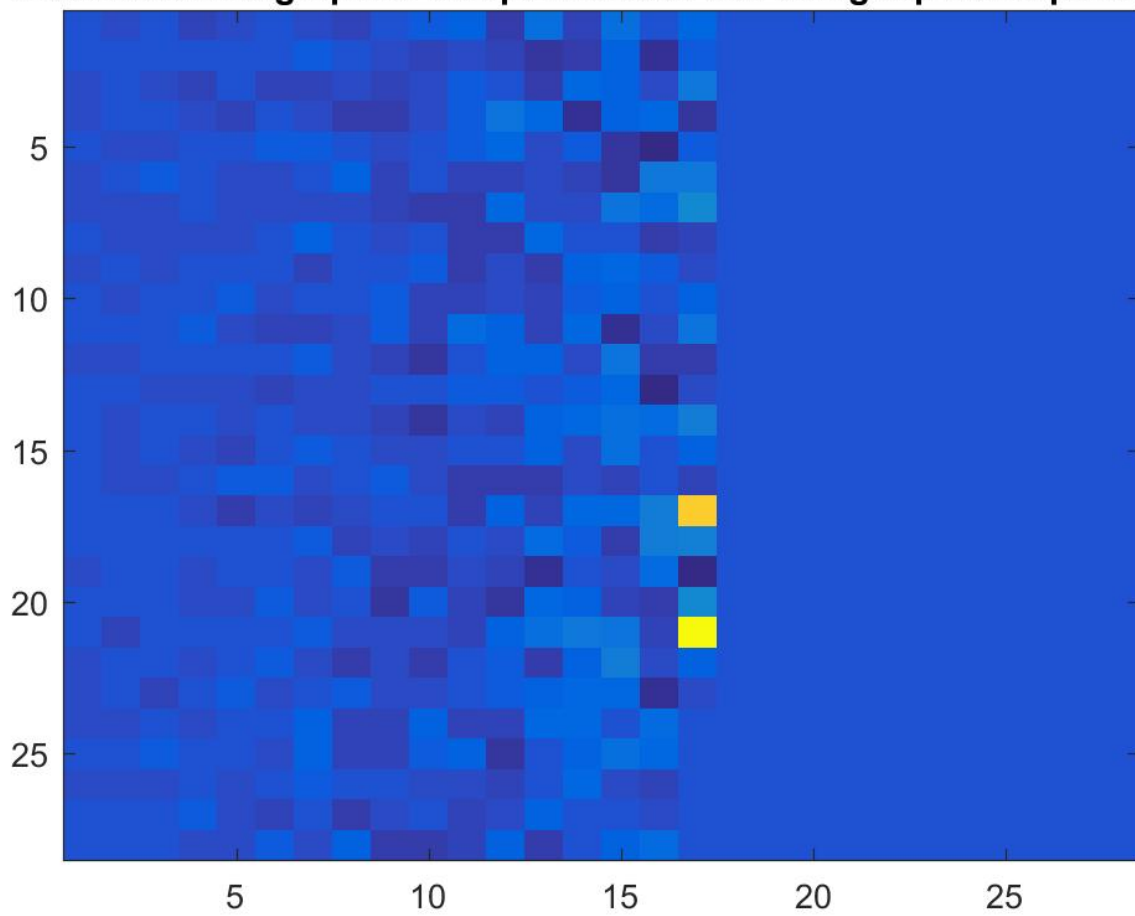**Reconstructed graph of sample number 634 using top 5 components**

Reconstructed graph of sample number 748 using top 5 components
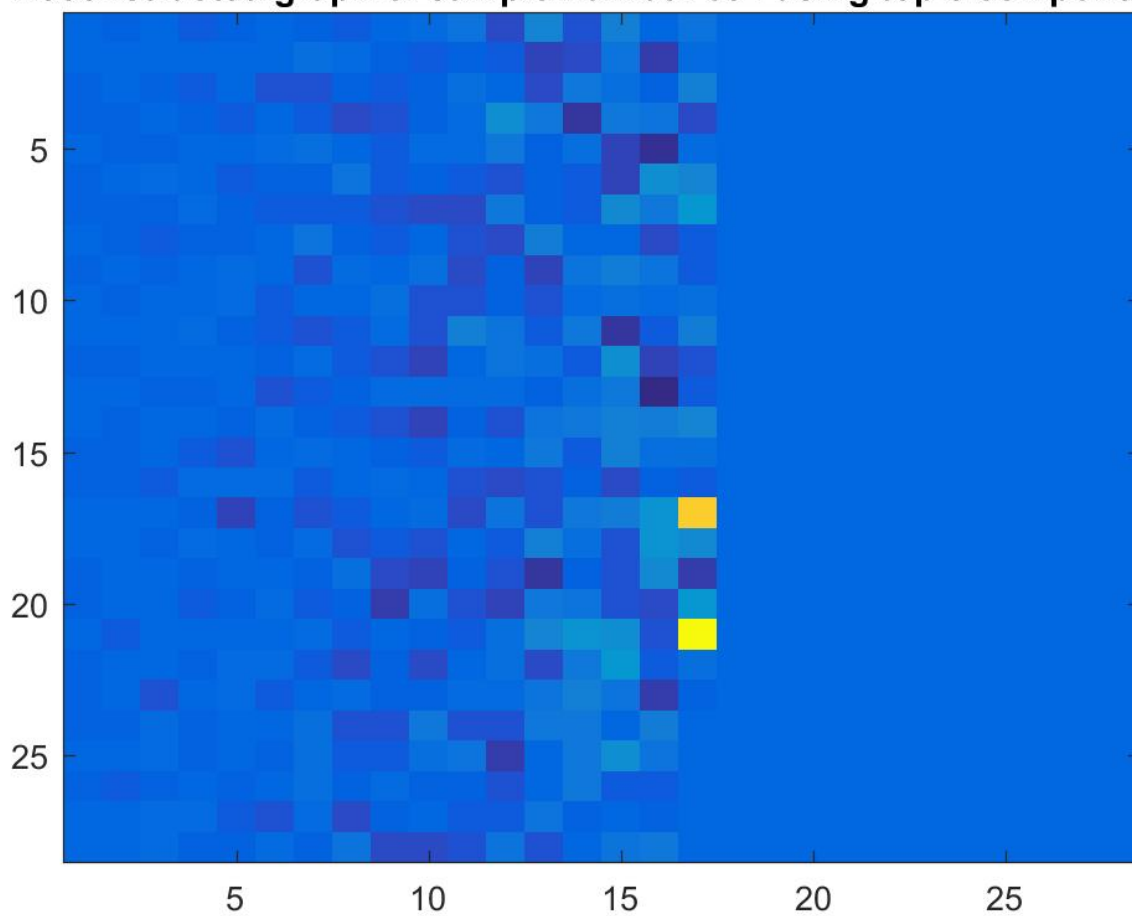
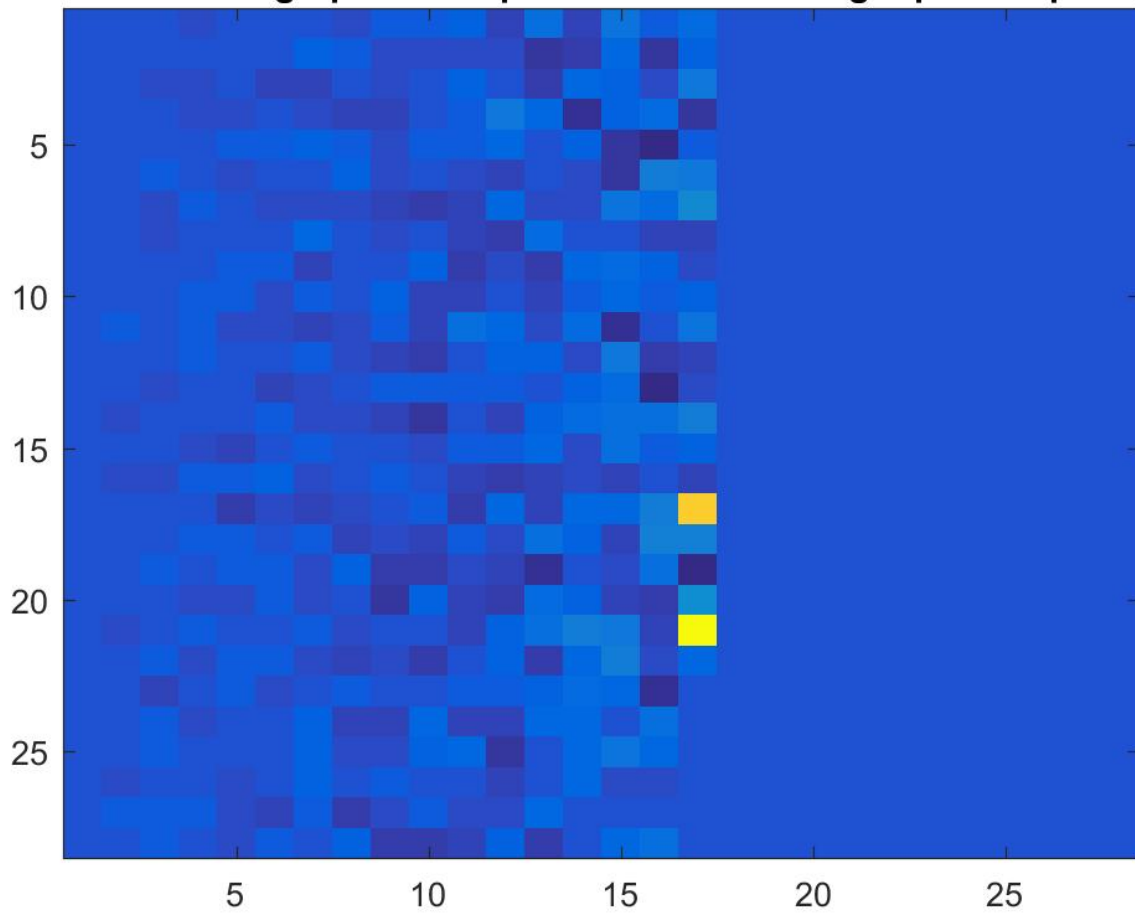## Reconstructed graph of sample number 201 using top 5 components

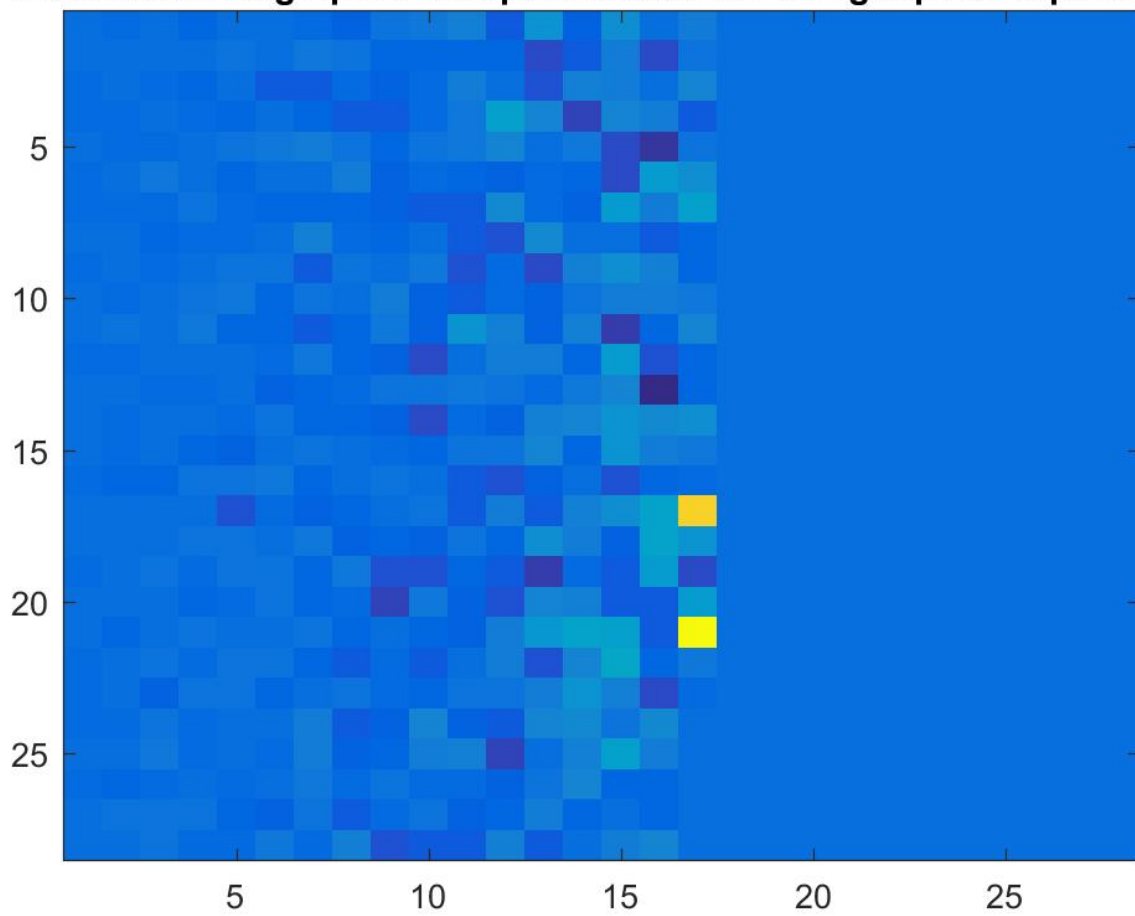## Reconstructed graph of sample number 262 using top 5 components

Question c

The difference between each sample graph decrease,

The difference between the image and background in each graph decrease.

Reconstructed graph of sample number 950 using top 5 components

Reconstructed graph of sample number 634 using top 5 components

Reconstructed graph of sample number 748 using top 5 components

Reconstructed graph of sample number 201 using top 5 components

Reconstructed graph of sample number 262 using top 5 components