Math 156 Project

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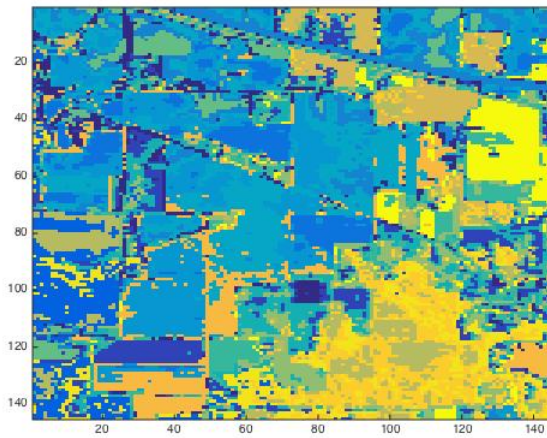## Spatially spread out initial cluster centers

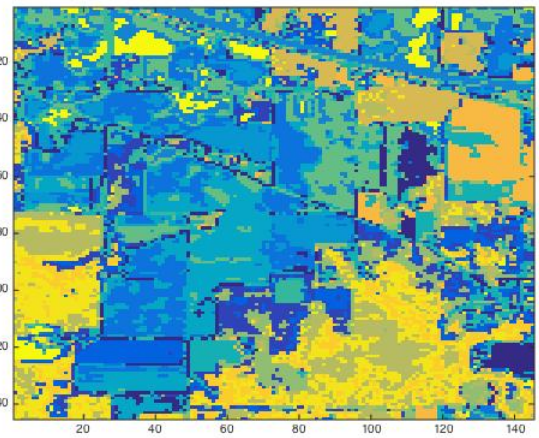Figure 1: Seventeen spatially spread out initial cluster centers, using raw pixel value.

Figure 2: Seventeen spatially spread out initial cluster centers, using 5x5 averaging.
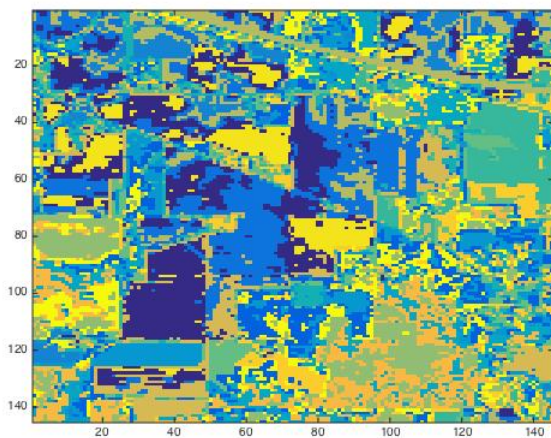
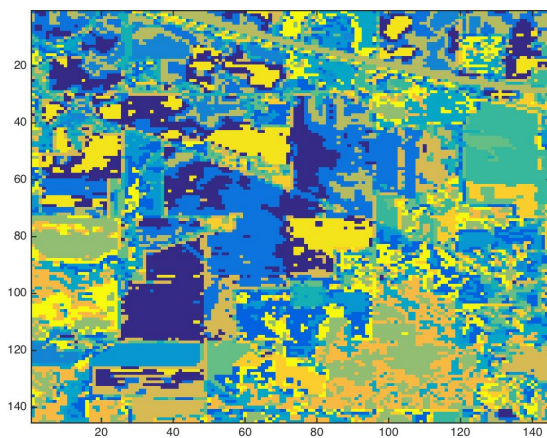## Plain K-means with different lambda

Figure 3: $\lambda = 10$

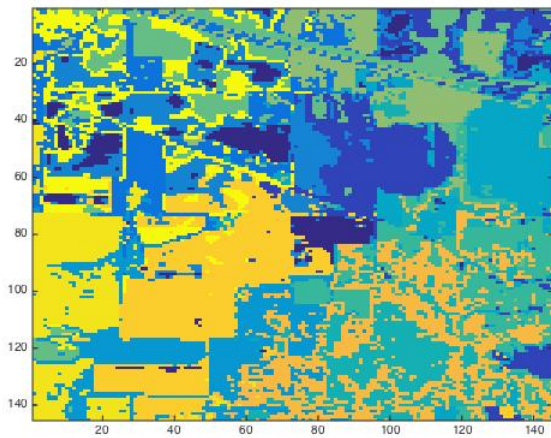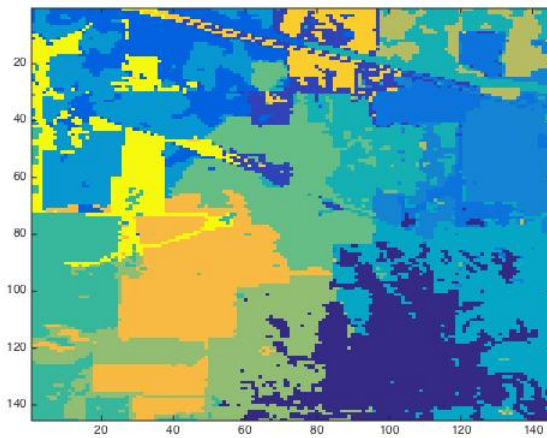Figure 4: $\lambda = 25$

Figure 5: $\lambda = 50$

Figure 6: $\lambda = 100$
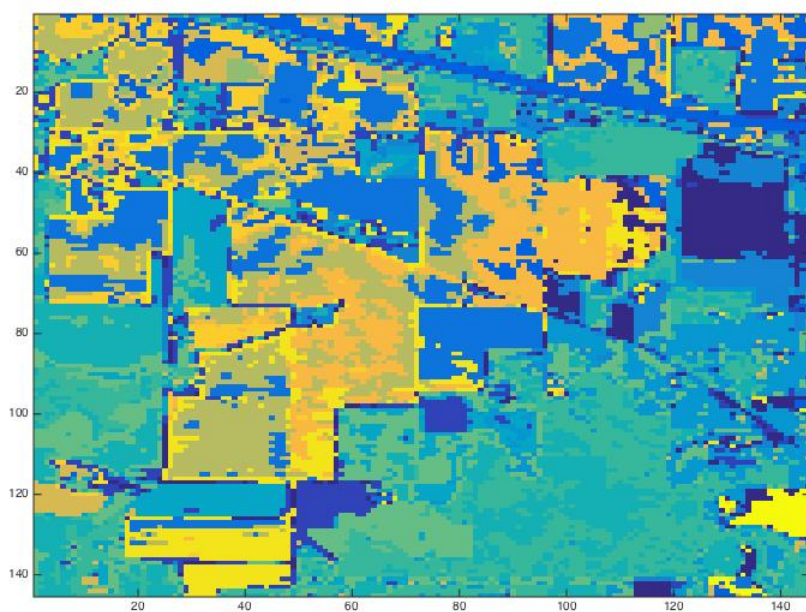
Over determined means

Figure 7: One hundred initial cluster centers.Then the cluster centers are clustered back down to 17 of them.