Lecture 18: Dimensionality Reduction

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Density estimation with highdimensional data



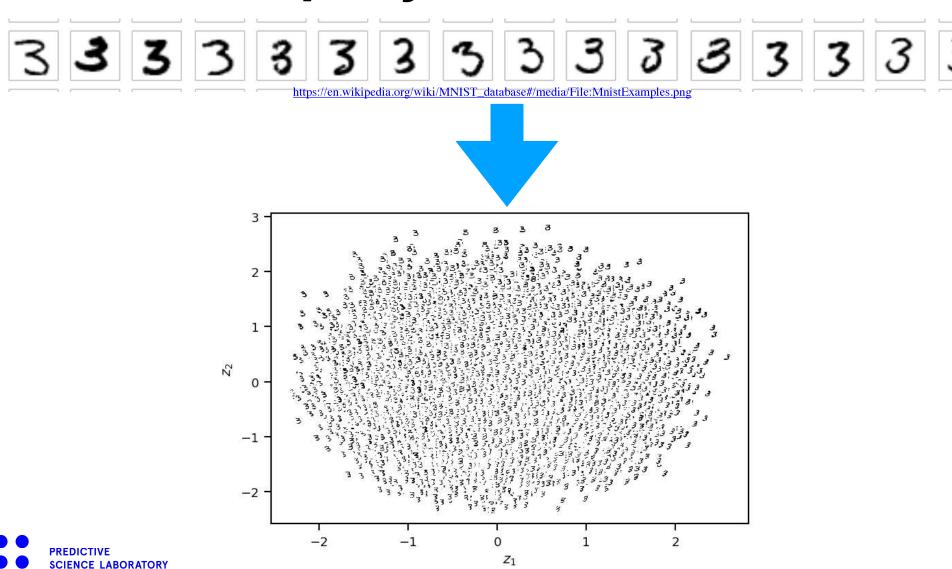
Clustering high-dimensional data

 Gaussian mixtures directly on high-dimensional data does not work very well...

- IDEA:
 - First reduce dimensionality using PCA.
 - Then apply Gaussian mixtures.

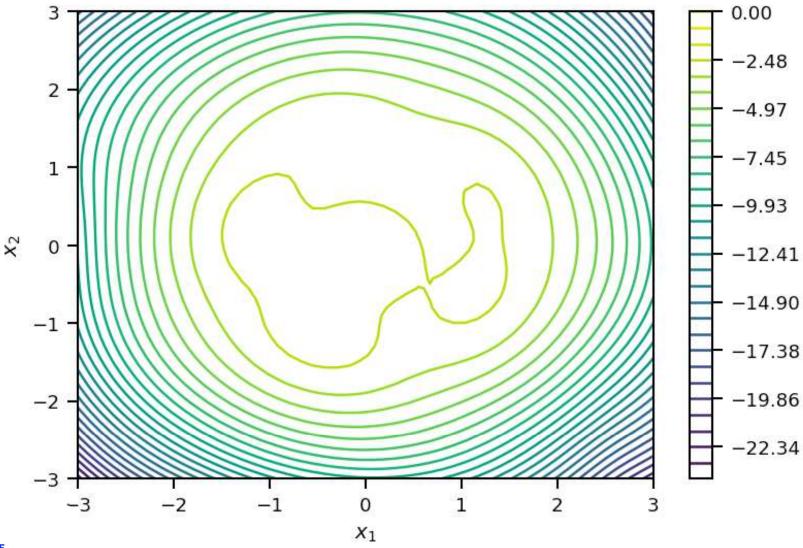


Gaussian mixtures on projected set



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Probability density in reduced space





Some random samples



