**Day 9**[Help](https://class.coursera.org/bigdataschool-001/help/pages?url=https%3A%2F%2Fclass.coursera.org%2Fbigdataschool-001%2Fwiki%2FDay_9)

**Dimensionality Reduction**(D. Thompson)

* [Local Methods for Pattern Recognition](https://class.coursera.org/bigdataschool-001/lecture/3) [15:59] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/Thompson_lecture1.pdf) (pdf)
* [Nearest Neighbors and the Curse of Dimensionality](https://class.coursera.org/bigdataschool-001/lecture/5) [16:37] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/Thompson_lecture2.pdf) (pdf)
* [Feature Selection](https://class.coursera.org/bigdataschool-001/lecture/7) [15:35] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/Thompson_lecture3.pdf) (pdf)
* [Linear Dimensionality Reduction](https://class.coursera.org/bigdataschool-001/lecture/9) [18:20] [Slides (pdf)](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/Thompson_lecture4.pdf)
* [Metric Learning](https://class.coursera.org/bigdataschool-001/lecture/11) [18:16] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/Thompson_lecture5.pdf) (pdf)
* [Nonlinear Dimensionality Reduction: KPCA](https://class.coursera.org/bigdataschool-001/lecture/13) [18:49] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/Thompson_lecture6.pdf) (pdf)

**Exercises:**

* Description: [pdf](https://d396qusza40orc.cloudfront.net/bigdataschool/Thompson_Exercises.pdf) or [doc](https://d396qusza40orc.cloudfront.net/bigdataschool/Thompson_Exercises.docx)
* Data files:
  + [Citrus\_Identification\_Data.txt](https://d396qusza40orc.cloudfront.net/bigdataschool/Citrus_Identification_Data.txt) (16.1 MB)
  + [Citrus\_Identification\_Wavelengths.txt](https://d396qusza40orc.cloudfront.net/bigdataschool/Citrus_Identification_Wavelengths.txt) (5 KB)
  + [Citrus\_Varieties.txt](https://d396qusza40orc.cloudfront.net/bigdataschool/Citrus_Varieties.txt) (5.4 MB)
  + [Citrus\_Varieties\_Wavelengths.txt](https://d396qusza40orc.cloudfront.net/bigdataschool/Citrus_Varieties_Wavelengths.txt) (7 KB)
  + [*Everything in one zipped folder*](https://d396qusza40orc.cloudfront.net/bigdataschool/Thompson_data.zip)(6.2 MB)