

ADDITIONAL READING, WEEK 4

Bias variance tradeoff and model complexity

1. Chapter 9 in the [course notes](#)
2. Sections 2.9, 7.3 in HTF [The Elements of statistical learning](#)
3. Section 3.2 in Bishop [Pattern Recognition and Machine Learning](#)

Kernel methods and Support vector machines

1. Chapters 10 and 11 in the [course notes](#)
2. Chapters 6, 7 in Bishop [Pattern Recognition and Machine Learning](#) (you can also read Appendix E on Lagrange multipliers)
3. Chapters 6, 12 in HTF [The Elements of statistical learning](#)
4. Chapter 14 in Murphy (see <https://library.nyu.edu/> or the NYU Paris Library)
5. Chapters 4 and 5 in [MRT's Foundations of Machine Learning](#)
6. Original paper on [Support-Vector Networks](#) by C. Cortes and V. Vapnik

Additional references to go further

1. [Learning with kernels : SVM, regularization, optimization, and beyond](#). Sholkopf and Smola. In particular, you can look at the Tutorial introduction as well as Chapters 2, 6 (optimization) 7 and 13.

Some applications

- (1) [Schüldt et al. Recognizing Human Actions](#)
- (2) [Natural Language Processing and Text Categorization](#)
- (3) [Face detection](#)
- (4) [Finance](#)