# Tilastollisen oppimisen jatkokurssi 2018–2019 Advanced statistical learning 2018–2019

## Round 4, 14.1.-27.1.

## Topics:

- Support vector machine (SVM)
- Maximal margin classifier and support vector classifiers
- Nonlinear decision boundaries
- SVM and relationship to logistic regression
- Kernels and SVMs

### Material:

- $\bullet$  ISLR chapters 9.1–9.5 (and Lab 9.6)
- ISLR videos 9.1–9.4
- FDP videos: 14–15
- $\bullet~{\rm ESLR}$  chapters 12.1–12.3
- CASI chapter 19

### Exercises:

- 1. ISLR 9.2
- 2. ISLR 9.3
- 3. ISLR 9.5
- $4.~\mathrm{ISLR}~9.7$
- 5. ISLR 9.8