

Statistical Machine Learning

Final – Due at 18:00, Jun. 22, 2025

Exam Guidelines:

- Do not discuss this exam with anyone other than your instructor. You may use any notes, books, journal articles and other tools, but you are not to collaborate! I will pursue any suspected cases of academic dishonesty using all the resources at my disposal and to the maximum extent allowable under university policies and procedures.
- No late submission will be accepted without permission granted prior to the due date.

1. Chapter 7:

- (a) Do problem 1, 2 in the textbook exercise.
- (b) Do problem 9 in the textbook exercise ((a)–(f)). Moreover, Do problem below:
 - (g) Fit a piecewise linear regression model. Interpret and plot the resulting fits. You could plot two model results–piecewise linear model and final model in (f). Also, Compare your final model in (f) by RSS and decide the final model.

2. Chapter 9:

- (a) Do problem 3, 5 in the textbook exercise.