

43075-01 Probabilistic Shape Modelling

Lecturers

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Introduction 31. March 2020

Deadline **13. April 2020, 23.55 (submission on Adam)**

Introduction

The goal in this project is to complete the femur project, as described in the online course, Step 6.8. More precisely, you will build a femur model from a number of example datasets as detailed in the exercise sheets 1 and 2. Using this model, the goal is to compute a reconstruction (completion) of a set of femur bones with missing parts.

Your tasks

Please follow the detailed instructions given in Step 6.8 on FutureLearn:

<https://www.futurelearn.com/courses/statistical-shape-modelling/5/steps/630830>.

Submission

To submit your solution, please upload a zip file containing the following items to Adam:

- Data resulting from your work (i.e. the bone reconstructions, your model, ...)
- The Scala source code of your solution
- A short report (approximately 3-5 pages)

Our main source for grading your work will be the report. Please make sure that it is well written and clearly explains the methods you used and your choices of parameters. Also include a discussion of your results.

Grading We will grade the report according to the following criteria:

- Structure of the report, Clarity of exposition (20 %)
 - How easy is it to understand what you did?
- Theoretical correctness (30 %)
 - Does your report show an understanding of the concepts.
- Originality / Own thoughts and ideas (25 %)
 - Does your method include ideas that go beyond the “recipe’s“ given in the tutorials
- Quality of the results (25 %)
 - How well did your method reconstruct the given target surfaces.

Challenge

The same project is organized as a challenge, with international participation. We encourage you to participate in this challenge and compete with international researchers and former students of this course. To participate, simply upload your results to the SMIR for evaluation, as described in Step 6.8.

