

# Tutorial XIII - Recap and Discussion

## Applied Optimization with Julia

### Introduction

#### Solutions

You will likely find solutions to most exercises online. However, I strongly encourage you to work on these exercises independently without searching explicitly for the exact answers to the exercises. Understanding someone else's solution is very different from developing your own. Use the lecture notes and try to solve the exercises on your own. This approach will significantly enhance your learning and problem-solving skills.

Remember, the goal is not just to complete the exercises, but to understand the concepts and improve your programming abilities. If you encounter difficulties, review the lecture materials, experiment with different approaches, and don't hesitate to ask for clarification during class discussions.

Later, you will find the solutions to these exercises online in the associated GitHub repository, but we will also quickly go over them in next week's tutorial. To access the solutions, click on the Github button on the lower right and search for the folder with today's lecture and tutorial. Alternatively, you can ask ChatGPT or Claude to explain them to you. But please remember, the goal is not just to complete the exercises, but to understand the concepts and improve your programming abilities.

This will (hopefully) be the easiest tutorial of the entire course. Essentially, we will just use today's tutorial as a last chance for you to ask questions and discuss the content of the course.

#### Feedback on the lecture series

To receive half a bonus point, you will just need to complete a short feedback form on the lecture series before the exam. It is not from the university, but from me, and I would be truly grateful for your honest opinion and feedback. Your feedback is important to me and has absolutely no influence on your grade!

#### Questions

You can answer the questions directly online, but I'll give you a heads up with the list of questions before. In total I think it will take you about 15 - 20 minutes to complete the form - that's not too bad given that you will receive half a bonus point for it, right?

In all honesty, I know this is much to ask of you - especially given that you will only receive half a bonus point for it and the exams are coming up. However, I think it is very

important for me to get your honest opinion and feedback. I will use it to improve the course for future students, as well as for my future teaching.

## Julia Programming Experience

As this course introduced many of you to Julia programming, I'm particularly interested in your experience learning and working with this language. Your feedback will help determine if Julia remains the right choice for future iterations of this course and what additional programming support might be needed.

- How did you find the learning experience of Julia in this course?
- What were the greatest challenges you faced while learning Julia?
- Should I have used a different programming language for this course?
- Should we have covered programming with AI in this course?

## Course Content and Structure

The course covered a wide range of optimization topics, from basic concepts to advanced applications. I'd like to understand which parts resonated with you and which areas might need adjustment in terms of depth and clarity.

- Which topics would you have preferred to explore in more depth?
- Was there any topic you felt was covered too much?
- Which of the topics would you recommend removing in exchange for a new topic in the future?
- How could the tutorial instructions be improved for clarity?

## Learning Experience

The course utilized a web-based format with interactive elements and a bonus point system. Your feedback on these teaching methods and course mechanics will be valuable for improving the learning experience.

- How did you find the website format for learning the material?
- What additional elements would enhance your learning?
- How could the teaching of the course be improved?
- How could the bonus point system be improved?

## Future Improvements

Looking ahead, I want to ensure this course continues to evolve and meet students' needs. Your suggestions for future developments and overall reflections will help shape the course's direction.

- What type of exam would best demonstrate your understanding?
- Please summarize your overall experience with the course?
- Is there any course at the university you would like to see in the future?
- Have I missed anything important? Here is your chance!

## Feedback Form

### Wrap-up

Thank's for your participation! I wish you all the best for your exam and I hope you enjoyed the course! If you have any questions, please feel free to ask me or send me an email. We offer seminars each summer semester where you can explore different topics in more depth. In case you are interested in writing your thesis with me, please let me know and we can discuss potential topics.

### Bibliography