

Final exam: dissecting a paper

Location

Akers Hall, Classroom 135 (Note the different location)

Date & Time

- Slot 1 | Thr, Dec 05 12:30 – 2:30 pm
- Slot 2 | Fri, Dec 06 12:30 – 2:30 pm

Registered students have been pre-assigned to these slots. Auditors are welcome to come to either session.

Instructions

Before the exam

1. Select a primary research article published by you/your-group in the past 3–5 years that:
 - a. Has a specific question (exploratory or hypothesis-driven).
 - b. Based on experimental data (newly generated or previously published).
 - i. You do not need to bring any data to class. Just make sure the results are based on a dataset.
 - c. Contains a “Methods” section.
 - d. Involves at least **3 different results** – figures/tables in the main paper – obtained based on statistical data analysis. **[This is critical.]**
 - e. If you’re not sure about your choice of paper, you send me a few options on Slack to check with me to make sure the paper has enough statistical stuff to dig in for the final exam!
2. Carefully read the paper to dissect the statistical analyses and visualization choices that went into each of these results.
 - a. Remember that details about a single analysis/result might (unfortunately) be strewn across the entire paper:
 - i. Results section
 - ii. Methods section
 - iii. Figure/table legend
 - iv. Supplementary materials/files, and
 - v. Even older papers cited here!
 - b. For each result (figure/table), take stock of all this information somewhere at least as rough notes before the exam, and bring these notes to the Final exam. NOTE: You will not have

time to make these notes during the exam.

Some notes

- You do not need to find and bring the original/experimental data behind the paper.
- I suggested bringing a paper authored by you or someone in your group but if you are having a hard time finding one that fits our criteria, please feel free to bring a paper written by anyone. Just make sure it is relevant to your research so that you can dig into the details easily.
- Ask someone senior in your group (postdoc / PI) for suggestions on a good paper if you are still not sure.
- You are encouraged to discuss the paper – its research question, methodology, and/or analyses – with folks in your group or your collaborators beforehand.

For/During the exam

- Please bring the following:
 - Your laptop with you. You will be doing your exercise on your computer.
 - A hard or soft copy of your notes on your chosen paper.
 - NOTE: you will be asked to submit a PDF copy of the paper (& any relevant supp materials) + notes.
- You are welcome to bring anything else you like (printouts, notes, etc.) to the exam.
- You are welcome to refer to anything online during the exam.
- You will not be required to write any code during the exam.