

# Homework 5

Math 669, Spring 2022

This homework – which pertains to your final project – is due on Wednesday, March 2.

1. Read the first few pages of Chapter 13 (“Flow”) from *Writing Science* (Schimel), provided in class (and available online via the TAMU library).
  - (a) Did anything in the chapter surprise you?
  - (b) Pick a short excerpt (several paragraphs) from your article (for the project), and answer the question, *How well do the authors of the article implement the ideas from the chapter on flow?*
2. (In this part of your homework, you will begin writing parts of your final paper.)
  - (a) What is the scientific (biological) context/motivation behind your article?
  - (b) What were the objectives of the article? How do they relate to the question(s) you stated on a previous homework? What did the authors do to meet these objectives (for instance, did they develop or analyze a mathematical model)?
  - (c) Does your article involve *forward* or *reverse modeling* (or neither)? Explain.

# Final project (rubric)

The final report is due on *Tuesday, May 3, by 5pm*, to the instructor's office.

**Requirements for the final report:** The report should explain, critique, and/or extend the results in the article you have chosen to read and analyze. Specifically, the report must:

- (a) describe the scientific/mathematical context and background,
- (b) state the main scientific/mathematical questions addressed in the article,
- (c) explain why these questions are important and/or interesting,
- (d) describe the authors' objectives and what they do to achieve them,
- (e) state at least one main mathematical result (together with all necessary definitions),
- (f) interpret the significance of the result in terms of the authors' objectives,
- (g) explain the scientific/mathematical conclusions the authors reached, and
- (h) extend the results in the article and/or critique some scientific or mathematical aspect of the article.

There is no length restriction, but each final report will likely comprise four or more pages.

**Grading for the final report:** Grading is out of 100 points, largely for meeting the requirements listed above:

- 20 points for (a)–(d)
- 30 points for (e)–(g)
- 20 points for (h)
- 15 points for addressing comments from the instructor and peers on prior drafts
- 10 points for organization and clarity
- 5 points for correct spelling and grammar.

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**Requirements for the final presentation:** The presentation should accomplish (a)–(h), with the aid of computer slides. The time allotted for each presentation is 12–15 minutes, with additional time for questions.

**Grading for the final presentation:** Grading is out of 100 points: 50 points for achieving (a)–(h), 30 points for clear and effective slides, 20 points for organization and clarity.