

MATH 7875-009
Mathematical Biology Journal Club (1 credit)
Fall 2020

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Journal Club Website: www.math.utah.edu/research/mathbio/journalclub/journalclub.html

COURSE DESCRIPTION: Journal Club is a 1-hour weekly course designed to aid students in their transition from undergrad to graduate school. The course is intended to provide students with the opportunity to develop their skills in reading, discussing, and presenting mathematics papers in the area of mathematical biology. Perhaps even more importantly, it is meant to serve as a place for students to discuss their concerns regarding teaching, or graduate school more generally, with their peers. Historically, Journal Club is one of the most important places for incoming students to become incorporated with the Math Biology community here at the University of Utah.

FORMAT: Each week one student will give a 50 minute presentation of a mathematical biology paper over Zoom.

- Fall Semester: Students will give a live “chalk talk” presentation (Alex can provide a Doc Cam if you do not have access to a tablet, etc.) First year students will choose a paper from a list of suggested journal articles. Second year students may choose any paper, ideally after consulting their advisor.
- Spring Semester: First year students will give a “chalk talk” format presentation and second year students will give a beamer/powerpoint format presentation (Beamer preferred). Students may choose any paper to present.

Presentations should be structured as follows:

- 10 minutes introduction/background,
- 15 minutes of methods,
- 15 minutes of results,
- 5 minutes of discussion, and
- a brief (5 min) recap of your presentation.

EXPECTATIONS:

- Presentation:

- Students prepare a 50 minute presentation of a Math Bio Journal Article using the provided guidelines.
 - To prepare for this, students meet with Amanda and Alex over Zoom the week before to discuss the paper and presentation. **Students should have their presentation notes ready and be prepared to discuss the major points of the paper.**
 - First year students are **encouraged** to discuss paper content with a faculty member; second-year students are **expected** to do so
 - After presenting, Amanda and Alex and will debrief with the presenter (5-10 minutes),
 - Presenters need to submit their presentation notes after they are finished presenting their paper
- Participation:
 - On the days you are not presenting you will be expected to come prepared for discussion, by reading the article and preparing a **written summary**, which should focus on the abstract, figures and key equations. Address the following:
 - * What are the main question(s)/hypotheses addressed by the article?
 - * What techniques did the authors use to address them?
 - * What are the main results of the paper?
- Summaries need to be emailed to Amanda/Alex before Journal Club (the point of writing summaries is to help you think critically about the paper and help you engage and participate). You can write paragraphs, or complete sentence bullets - as long as you write something. Think critically about the following:
- * What assumptions did the author(s) make in constructing their model?
 - * According to the author(s), do the results answer the question(s)/support their hypothesis? Why or why not?
 - * Do you agree with the author(s)? Do you feel that the results support the author(s) conclusions?
 - * Do you have any additional questions/comments about the paper content?
- Each student is expected to be an *active participant* in Journal Club discussions. At the very least, plan to share one question, thought, idea, etc. with the group each session. Feel free to include this in your summary as well.

IMPORTANT DATES

- Wednesday, September 2 – Paper Selections Due, and email us whether you want to take the class for credit or not by this date