Instructors: Peter Shearer, pshearer@ucsd.edu, Munk 330

Course Description:

The SIOG239 class is an extension of the SeismoChat meetings we have previously held. We are formalizing the class to require graduate students to provide regular research updates or lead paper discussions on a quarterly base. Each student is expected to present two short talks during the quarter: (1) A update of progress on their research, and (2) A summary of a recent paper on a geophysics topic. Each talk should be 15 to 20 minutes long to allow ample time for questions and discussion. For (1), students should prepare an abstract summarizing their research and send it out the Monday prior to their presentation. For (2), students should send the paper abstract and a link to the paper on the Monday prior to their presentation.

In-person attendance is expected for students; any absences should be discussed in advance with both me and your advisor. I dislike hybrid meetings, but if necessary (illness, field work, meeting attendance) I will attempt to set up a Zoom link and use the Owl for remote participation.

If time permits, we may also include presentations from postdocs.

Class Presentations:

Students will give presentations quarterly on their own research. The presentations will be individual, and no group work is allowed. Please plan your talk to be around 15 to 20 minutes, leaving 5 to 10 minutes for discussion. For your talk, use the first few minutes to review your previous research progress (your last update) and then spend the remaining time discussing your new progress (since your last update). Presenting null results is acceptable. In such cases, it is important to explain both the reasons for these results and the efforts made. Please adhere to the time limit!

Paper Discussion:

If you have no new research to present, as might be the case for first-year students, you may give two paper-summary talks. Please reach out to either your advisor or me to select a paper for discussion. You should plan for a 15 to 20 minute talk to allow time for discussion.

Abstract:
There is no homework. Students are expected to prepare an abstract summarizing their research and send it out four days (the Monday) prior to their presentations. In most cases, this guide works well (modified from *How to construct a Nature summary paragraph*):

1. One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline.

2. One to two sentences of **more detailed background**, comprehensible to scientists in related disciplines.

3. One sentence clearly stating the **general problem** being addressed by this particular study.

4. One to two sentences summarizing the **previous** result (first few minutes of presentation).

5. One to two sentences summarizing the **new main** result (remaining presentation).

6. Two or three sentences explaining what the **main result** reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.

7. One or two sentences to put the results into a more **general context**.

8. One or two sentences to provide a **broader perspective**, readily comprehensible to a scientist in any discipline.

**Presentation Schedule:** (planned to be mostly filled in before first class)

- Jan 12: Introduction
- Jan 12:
- Jan 19:
- Jan 19:
- Jan 26:
- Jan 26:
- Feb 1:
- Feb 1:
- Feb 9:
- Feb 9:
- Feb 16:
- Feb 16:
- Feb 23:
- Feb 23:
- Mar 1:
- Mar 1:
- Mar 8:
- Mar 8:
- Mar 15:
- Mar 15:

**Grading Policy:**

S/U.

Attendance (30%). Presentations (50%). Abstract (20%).