Preparing Journal Club Talks

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"I wasn't paying attention. Could you please repeat your speech?"

Journal Club: For communicating the **research of others** to disseminate new results quickly

- Rules of the Club:
  - You are not an expert, but you can still guide us through the research
  - Choose and read the paper …
    - Look for additional resources to understand the paper – e.g., talks given by the authors, local experts, highlight articles on paper
  - Understand the topic, present it clearly to the group, lead the discussion
- How to choose a paper?
  - Choose an article in *Science*, *Nature*, or *Phys. Rev. Letters*
  - Choose a topic that interests you or that you want to learn about
  - Consider Physics Focus and Viewpoint articles (http://focus.aps.org/)

What's special about journal club talks?

Journal club talks are different than other scientific talks; their primary purpose is not to present ***your*** results, but rather to:

- Learn about different fields
- Keep your group informed about new developments in your field
- Foster discussions and interactions
- Help students (you!) develop presentation and critical analysis skills

Preparing your journal club talks

Read the article carefully and critically

Take notes while reading

Read related articles or background texts if necessary to understand material

Seek out local experts if you have questions about the article (talk to me if you want suggestions on the right people to ask)

Present journal club talks in four steps

Step 1: Summarize the article

Provide details: what, when, where, why, how

What are authors' main messages?

Are there controversial issues involved?

Step 2: Compare/contrast the article

Was there earlier work? (check the paper's references)

Are there disagreements with other work?

Are there alternative interpretations of these results?

Step 3: Critique and question

Objective: Did the authors support their points?

Objective: Was the support offered valid?

Subjective: Did you find the paper interesting or important?

Subjective: Do you feel the paper will have strong impact, and if so, why?

Step 4: Present your conclusions

Recap the authors' main messages

Summarize your main points about the paper

Make suggestions for further reading

Step 5: Provide a citation analysis (special)

Use the online resources we'll discuss in two weeks (Sept. 12) to:

- Find out how much impact your paper has had

- Identify the direction the field went *after* the paper was published

This is not typical information included in a journal club talk, but it will give you practice using citation indices and other useful on-line resources

Journal Club Assignment Timeline

Sept. 19: Each team should select a journal club paper and send me* the reference, so I can make sure it's an appropriate paper.

Weeks of Nov. 21 or Dec. 5: By Wednesday of the week of your presentation, you should send me a draft of your talk and your team will meet with me to discuss my suggestions for your presentation.

Nov. 21 or Dec. 5: In class journal club presentations. You'll help rate the presentations. 'Best' presentation awards will be given! Judges: Lance Cooper and Celia Elliott.

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Organizing a 25-minute scientific talk

Background and Introduction (3–5 minutes)

Title slide with authors and paper reference

Overview slide – Why is this research important?

⇒ 1–2 slides to provide essential background

Body (10–13 minutes)

Develop *only* two or three main ideas (2 slides each)

Journal Club: Provide critique of paper

⇒ 5–7 slides

Summary (1 minute)

Review the main points (Journal Club talk: review both authors' and your points) ⇒ 1 slide

Questions (3 minutes) **(Know your audience!)**

⇒ 3–4 back-up slides

Tips for preparing your talk

Know your audience! This dictates the level of the presentation, the amount of information you present, the kinds of figures you show, etc.

When in doubt, assume your audience is comprised mostly of non-experts…this is certainly the case in Phys 596

Don't try to tell the audience everything about the paper: Identify the 2-3 main points (no more!) you want to convey in the talk

We'll talk about giving effective presentations in more detail later in the course

Create an outline of your talk: logical organization!

(we'll talk more about this later)

Tips for preparing your talk (cont.)

To understand the paper or get nice images, see if you can track down the web site of the authors

- Perhaps they have given a talk that's posted online
- Feel free to "borrow" slides
- But make sure you acknowledge…

Make use of web (Google! and Google Images!) to track down useful images and information

Remember that you are not an expert either—it is not your work. Don't worry if you don't get all the details. Just try to get the essential points.