Template for a Journal Club Presentation

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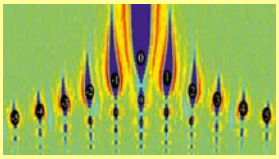
Start with a "title" slide

"The Title of the Paper You're Presenting"
Complete Bibliographic Citation



Presented by <Names of Team Members>
Department of Physics • University of Illinois at Urbana-Champaign
PHYS 496, April 22, 2016

The title slide cues the audience "Get ready to listen"
Include an interesting graphic to grab their attention

Your talk should answer the following questions:

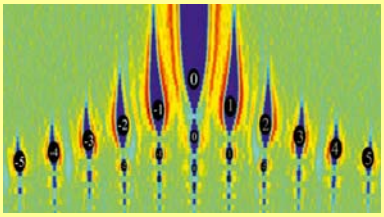
- What is new about the paper? (Introduction)
- Where does it fit in the context of prior work? (Background)
- What methods were used? (Methods)
- What were the primary results? (Results)
- What do the authors think these results *mean*? (Conclusions)
- What is your assessment of the paper? (Critique)

Use this paradigm to organize your presentation

What about an "outline" slide?

Outline

- Background and Introduction
- Methods
- Results
- Conclusions
- Critique
- Questions



SciTechDaily.com

I think the use of "outline" slides is vastly overrated—little meaningful content, eminently forgettable (*cme*)

If you feel compelled to provide an outline, make it content-rich

Today we'll discuss

- Majorana fermions (MFs), theory background
- InSb nanowires used as "colliders"
- Zero-energy peaks observed; believed to be electrons scattering off MFs
- Could be used for solid-state qubits
- Critique of paper
- Audience questions

Consider an "outline" graphic at the bottom of each slide to orient listeners

Motivating statement, written as a sentence and left justified

<SLIDE STUFF>

Theory • InSb Nanowires • 0-energy Peaks • MF Observed • Applications • Critique • Q & A

Place a running outline at the margins of the slide (bottom or left margin)

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Theory • InSb Nanowires • 0-energy Peaks • MF Observed • Applications • Critique • Q & A

Be creative but not distracting

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Allow at least 2 min* per slide

Do the math:

20 min total – 5 min for Q&A = 15 min for "talk"

$$\frac{\text{20 min talk}}{\text{2 min/slide}} = \text{10 slides max}$$

10 slides – title slide – summary slide = 8 slides

***Allow more time for dense slides, equations, tabular data**

How do you divide up your 8 slides?

1. **Problem/motivation**
2. **Background—what audience needs to know (prior work)**
3. **What is new**
4. **Why it is significant**
5. **Methods**
6. **Results**
7. **Conclusions**
8. **Your critique of the paper**

The last slide should be a summary that recaps the main points of your talk

- First "observation" of Majorana fermions in semiconductor nanowires
- Predicted in 1930s, never before observed
- Used InSb nanowires as "nano-colliders"; zero-energy peaks observed
- Generated quasiparticles of electrons, possible qubits for topological quantum computers
- Didn't actually *observe* Majorana fermions; inferred them from electron scattering

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Put your contact information on the last slide

Don't use a pointless last slide

The last slide will get the longest audience exposure—make it count!*

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*Reiterate your important points and stimulate audience questions

To recap…

- Discuss all aspects of the paper—background, methods, results, conclusions
- Be selective; distill your message to the essentials
- Emphasize what is new or different
- Present a critique of the paper—discuss strengths and weaknesses; evaluate its likely impact
- Provide a title slide and a summary slide
- No more than a total of 10 slides
- This assignment is a collaborative effort; all members of the team should contribute

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