

How to Present a Journal Club Talk

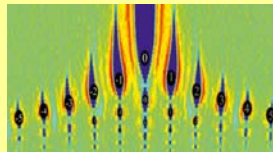


Celia M. Elliott
Department of Physics
University of Illinois at Urbana-Champaign

© 2018 The Board of Trustees of the University of Illinois
All rights reserved.

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, December 1, 2018

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:

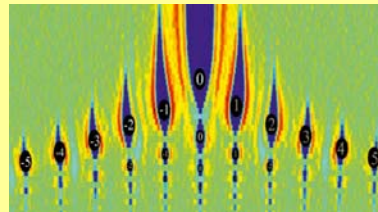
- What is new about the paper? (Introduction)
- Where does it fit in the context of prior work? (Background)
- What methods were used? (Methods)
- What were the primary results? (Results)
- What do the authors think these results *mean*? (Conclusions)
- What is your assessment of the paper? (Critique)

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

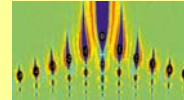
InSb nanowires used as "colliders"

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 right margin)

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

Be creative but not distracting

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

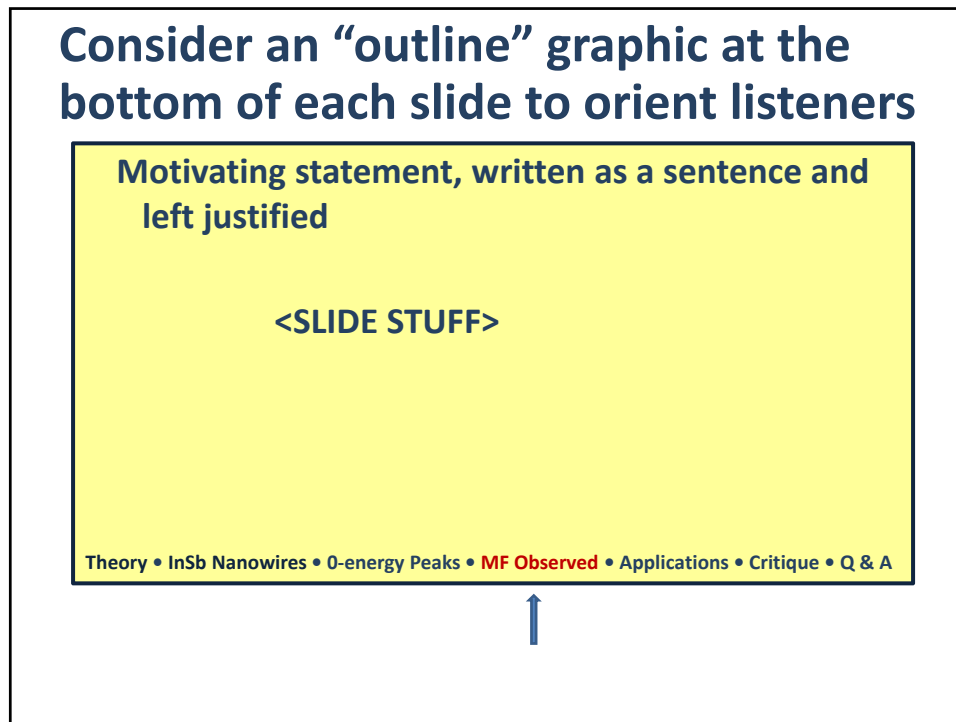


Consider an “outline” graphic at the bottom of each slide to orient listeners

Motivating statement, written as a sentence and left justified

<SLIDE STUFF>

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

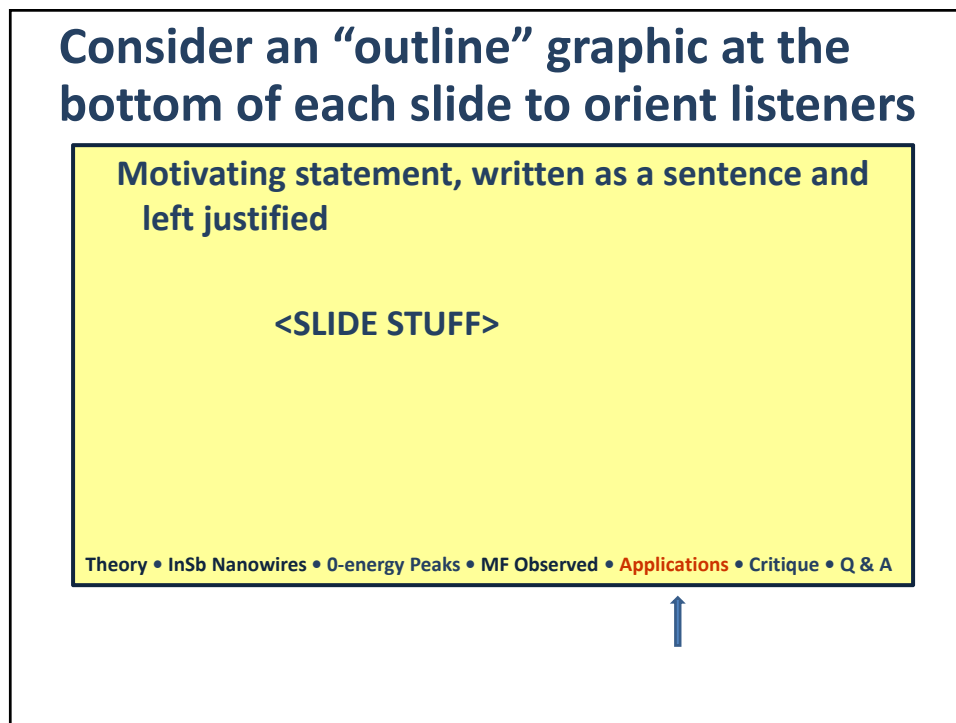


Consider an “outline” graphic at the bottom of each slide to orient listeners

Motivating statement, written as a sentence and left justified

<SLIDE STUFF>

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



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



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



Allow at least 2 min* per slide

Do the math:

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

$$\frac{15 \text{ min talk}}{2 \text{ min/slide}} = 8 \text{ slides max}$$

8 slides – title slide – summary slide = **6 slides**

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

How do you divide up your six slides?

1. Problem/motivation
2. Background—what audience needs to know (prior work)
3. What is new and why it's important
4. Methods
5. Results and conclusions
6. 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



cmelliot@illinois.edu

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!*

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



cmelliot@illinois.edu

***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 eight slides

This assignment is a collaborative effort; all members of the team should contribute

cmelliot@illinois.edu