

How to Present a Journal Club Talk

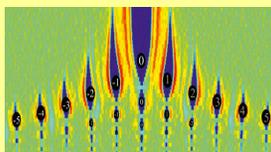


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Start with a “title” slide

“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 28, 2023

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

2

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)

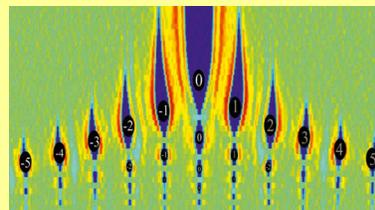
Use this paradigm to organize your presentation

3

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

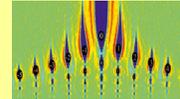
InSb nanowires used as "colliders"

Zero-energy peaks observed; believed to be electrons scattering off MFs

Could be used for solid-state qubits

Critique of paper

Audience questions



5

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)

6

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<SLIDE STUFF>

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

Be creative but not distracting

7

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<SLIDE STUFF>

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



8

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



9

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



10

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Motivating statement, written as a sentence and left justified

<SLIDE STUFF>

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



11

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



12

Allow about 2 min* per slide

Do the math:

15 min total – 2 min for Q&A = 13 min for “talk”

$$\frac{13\text{-min talk}}{\approx 2 \text{ min/ “content” slide}} = 6\text{--}7 \text{ “content” slides}$$

+ title slide + summary slide = **9 slides max.**

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

13

How do you divide up your 7 “content” slides?

Problem/motivation/background—what the audience needs to know (prior work)—1 slide

What is new and why it’s important—1 slide

Methods—1 slide

Results—1 slide

Discussion and conclusions—1 slide

Summary slide—1 slide

Your critique of the paper—1 slide

Note **last item**—the difference between a standard science talk and a journal-club talk

14

What is different about a JC talk?

Your critique of the paper

Put on your peer-reviewer hat

- Is the work valid?
- Does it represent a significant advance?
- Is it accessible?
- Are the figures well made and meaningful?
- Is the paper well written?
- How much of an impact has the paper had?

15

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

16

Don't use a pointless last slide



17

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

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***Reiterate your important points and stimulate audience questions**

18

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 10 slides

Rehearse and revise (shorten); mind the time

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19