Poster session

Date and time have changed! Will be announced!!

Show off your projects
Get experience
See what others have done

Faculty graders; peer graders

Refreshments

Award for best presentation (cert + sub to Sci. Illustrated)
   Approx 8 honorable mentions
Look good on resumés
What to Do

Prepare poster display (more later)

*Individual* assignment, not team

(You will get a number later)

Prepare 4-min talk

4-min questions and answers

Present paper to

1 faculty grader

Approx 6 fellow students

*N* guests

Eat cinnamon buns, fruit plate, whatever
How to give (any) oral presentation

1. Direct presentation to *educated* but *uninformed* audience
   
   Not professor or other specialists, but rather (say)
   
   Junior in Physics
   
   Someone who’s had Physics 200, little quantum mechanics, for example, or
   
   Senior in Biology, ME

   Baumeister’s Law: *You can’t insult people by telling them something they already know*
2. Organize talk as paper
   
   Introduction (introduce *self* as well as *topic*)
   
   Middle
   
   Conclusion (ask for questions)
   
   But also allow time for questions
   
   Timing is important—don’t go over, don’t go under
   
   (Conferences often have parallel sessions)
3. Use *visual aids* as much as possible

Avoid unnecessary frills (*chartjunk*)

Simple bullets: ● or maybe ¶ but not ♠ or ♦

No fancy background, no frames, small or no logo

No shading, good contrast

Use *color* sparingly

Make sure slide is *intelligible in B&W* before adding color

Limit *mathematics* to bare minimum

Use *telegraphic* style

No (or few) verbs of *to be*

No (or few) articles (a, an, the)
4. Figures

Strip *graphs* down to essentials

Make sure *axis labels*, *data* legible from rear of room

No Gatesian “legend”—label curves directly on graph

Use *schematic drawings* rather than photographs of equipment

Unless photos *uncluttered*, convey information clearly

Prepare slides *understandable to reader who has not heard talk*

Good practice, and

Someone *always* asks for copy of slides!
5. Talk directly to audience
   Face audience, not screen
     When appropriate, stand near screen
   Make eye contact
   Talk to back of room
   Use pointer to direct attention to salient points on screen
     But don’t just read screen; paraphrase
   Um, like, avoid saying “um” if possible
     Silence is, um, golden
How to present a poster paper

What is the purpose of a poster presentation?
How to present a poster paper

What is the purpose of a poster presentation?

Same as any other paper, plus:

- Seen by people who do not hear talk
- More personal interaction – individualize discussion – develop rapport with prospective employer, client
- Different kind of audience – gives feedback
- Contacts – sell product (self, if looking for job)

Poster paper is equal to any paper in “regular” session
Triptych

Paolo di Giovanni Fei

The Presentation of the Virgin, c. 1400
Poster Board

Shown with single sheets

But you can make it monolithic with PowerPoint
Posters

Legible from 2-3 meters
Use minimum 24-point type when possible
Use minimum 1.5 line spacing
Use *sans serif* font for legibility
Use *short, clipped phrases* for easy readability

*No* sentences, *no* paragraphs, *no* articles (*a, an, the*), *no* “to be” verbs; 1-2 lines maximum

Use plenty of white space

White or very light pastel paper only

2.5-centimeter margins

No frame around page
Lines (Rules)

Use minimum 2-point rules
Do not draw frame around text

Figures

Make each figure at least 1/3 of page
Do not put frame around any figure (adds clutter, wastes space)
Do not show grid, or right or top ticks
Limit text inside figures
Do not draw one line, tick, symbol, or zero you do not need
Add color only after you are sure figure is intelligible in black and white
Equations

Work equations into text just as in written paper

Equation

\[ x = y \] \hspace{1cm} (1)

is represented by line at 45°.

Not

Equation (1) is represented by a line at 45°.

\[ x = y \] \hspace{1cm} (1)
Tables

Need to be legible from distance

Remember format

Table 3.1. Common microscope objectives

<table>
<thead>
<tr>
<th>Magnification</th>
<th>Numerical aperture</th>
<th>Useful MP</th>
<th>$RL^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0.15</td>
<td>45</td>
<td>2.2</td>
</tr>
<tr>
<td>10</td>
<td>0.25</td>
<td>75</td>
<td>1.3</td>
</tr>
<tr>
<td>20</td>
<td>0.50</td>
<td>150</td>
<td>0.7</td>
</tr>
<tr>
<td>40</td>
<td>0.65</td>
<td>195</td>
<td>0.5</td>
</tr>
<tr>
<td>60</td>
<td>0.80</td>
<td>240</td>
<td>0.4</td>
</tr>
<tr>
<td>100(dry)</td>
<td>0.90</td>
<td>270</td>
<td>0.4</td>
</tr>
<tr>
<td>100(oil)</td>
<td>1.25</td>
<td>375</td>
<td>0.3</td>
</tr>
</tbody>
</table>

$a$ in micrometers and at 550 nm.
Common errors

Table 1. Caption is far too long for the width of the table.

<table>
<thead>
<tr>
<th>Source</th>
<th>Wavelength, nm</th>
<th>Etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
<td>589</td>
<td>Etc.</td>
</tr>
<tr>
<td>Helium</td>
<td>Etc.</td>
<td>Etc.</td>
</tr>
</tbody>
</table>

Table 2. Cells too wide and justified poorly.

<table>
<thead>
<tr>
<th>Source</th>
<th>Wavelength, nm</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
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<td>Etc.</td>
</tr>
<tr>
<td>Helium</td>
<td>Etc.</td>
<td>Etc.</td>
</tr>
</tbody>
</table>

Table 3. Too many rules.
Color

As above:

Use color sparingly
   And only when necessary

Make the figure intelligible in black-and-white
   Only then add color

Use white or pastel background
Remember not to clutter yr graphs:
Fig. 1. Graph according to Gates

\[ y = 0.9993x - 0.0802 \]

\[ R^2 = 0.9911 \]

Caption in wrong place

Useless coefficient

Usually too many sig figs

Ugly rules

Points should not be connected when best-fit line shown

Ugly box

Ugly gray background

Axes in wrong places

Useless frame
Fig. 2. Properly formatted graph

\[ y = 1.00x - 0.08 \]
Assignment

Worth 10 % of grade

Submit draft of posters next Tuesday by 4 pm

Get back following Thursday

To extent possible, submit:

Actual (computer-generated) posters you will display

Layout of poster board or smallish PP printout

<table>
<thead>
<tr>
<th>Physics 471. Evaluation sheet for poster drafts</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gets name right</td>
<td>6</td>
</tr>
<tr>
<td>Has good content</td>
<td></td>
</tr>
<tr>
<td>Well formatted, not cluttered</td>
<td></td>
</tr>
<tr>
<td>Uses telegraphic style, no sentences</td>
<td></td>
</tr>
<tr>
<td>Legible from 3 m</td>
<td></td>
</tr>
<tr>
<td>Sum</td>
<td></td>
</tr>
<tr>
<td>PH 471-2, Evaluation sheet for poster paper</td>
<td>Name</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td><strong>Grader's name</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Introduction:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Introduces self, project</td>
<td></td>
</tr>
<tr>
<td>2. Introduces clear central idea</td>
<td></td>
</tr>
<tr>
<td><strong>Body:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Supports main idea</td>
<td></td>
</tr>
<tr>
<td>2. Understandable to uninformed audience</td>
<td></td>
</tr>
<tr>
<td>3. Provides technical details</td>
<td></td>
</tr>
<tr>
<td>4. Shows good organization</td>
<td></td>
</tr>
<tr>
<td><strong>Conclusion:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Ties presentation together OR invites questions</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Time limits:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Fills time effectively (3-5 min)</td>
<td></td>
</tr>
<tr>
<td><strong>Visual aids:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Clear, readable</td>
<td></td>
</tr>
<tr>
<td>2. Legible from 3 m away</td>
<td></td>
</tr>
<tr>
<td>3. Uncluttered, outline form, no sentences, paragraphs</td>
<td></td>
</tr>
<tr>
<td>4. Support, complement presentation</td>
<td></td>
</tr>
<tr>
<td>5. Understandable on own</td>
<td></td>
</tr>
<tr>
<td>6. Enough (not too many or too few)</td>
<td></td>
</tr>
<tr>
<td><strong>Sound:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Clear volume and pronunciation</td>
<td></td>
</tr>
<tr>
<td>2. Good diction</td>
<td></td>
</tr>
<tr>
<td>3. Absence of verbal tics (um, like, y’know)</td>
<td></td>
</tr>
<tr>
<td>4. Good response to questions</td>
<td></td>
</tr>
<tr>
<td><strong>Miscellaneous:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Good posture, attitude, appearance</td>
<td></td>
</tr>
<tr>
<td>2. Good eye contact</td>
<td></td>
</tr>
<tr>
<td>3. Competent use of visual display</td>
<td></td>
</tr>
</tbody>
</table>