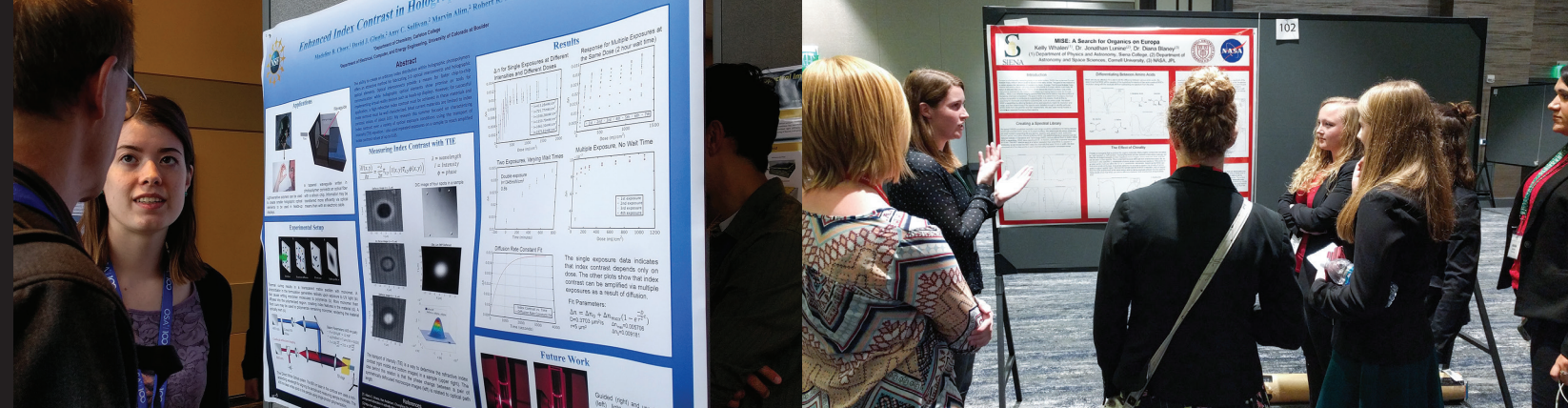




SEVEN SUGGESTIONS ON HOW TO MAKE AN AWESOME* POSTER

by Brad R. Conrad, PhD, Directory of Society of Physics Students and Sigma Pi Sigma

*People's preferences vary for posters, so make sure you get expert opinions before you print.



SPS MEMBERS PRESENT their posters at AIP Member Society Meetings. Photos courtesy of AIP.

1. TAILOR YOUR PRESENTATION TO YOUR AUDIENCE!

| | |
|---------------------------------|--|
| Experts within the field | <ul style="list-style-type: none"> Shorter background Identify field significance Key results Highlight new techniques |
| Colleagues | <ul style="list-style-type: none"> Stress background Clear presentation Detailed processes & data analysis |
| General public | <ul style="list-style-type: none"> Strong background Clear motivation Relate to their background Answer a clear question |

2. SELECT A GOAL FOR YOUR POSTER

- Your poster is a visual guide to reference while you present.
- The poster should not distract the audience but instead be a tool to transfer information.
- If the poster is meant to hang in a hallway or lab for a long time, it is OK to include more detail.

3. PURPOSE

- Posters are well-suited for presenting a logical argument to a small number of people.
- Conversations often end up being bidirectional and people will be talking to you, not reading the poster very much.
- Posters are fantastic for in-depth, technical discussions.
- Develop a clear, singular message.
- Identify what you want your audience to take away.



A Generic Poster Template with Tips

Brad R. Conrad^a and Annie Atom^b

^aSociety of Physics Students, American Institute of Physics, College Park, MD 20740

^bDepartment of Physics and Astronomy, University of Cool Physics, Neverland, WA 12345



Motivation

A strong motivation is key to keeping your audiences attention. A sentence or two is often good enough.

Introduction

This section should include background information necessary to understanding any theory or results seen later on.

Poster size:

- Common size: 3' tall by 4' wide

Fonts:

- Pick one and stick to it.
- Be consistent with formatting titles, bullet points, and tone.
- Pick an easy to read font.
- Sentences get a period at the end.

Font Size Recommendations

| | |
|----------------|---------------|
| Poster title | 90 pt |
| Authors | 60 pt |
| Affiliations | 56 pt |
| Section Titles | 60 pt |
| Main text | 32-36 pt |
| References | > 28 pt |
| Highlights | 40 pt or bold |

Note: It's your poster, so you can make them whatever you want. These are just suggestions.

Avoid too many colors.

General Advice

- Identify your audience.
- What is your poster's goal?
- A poster is good for two-way communication.
- Keep text short and figures long.
- Have a clear message.

Common Poster sections:

- A short title - clear main topic
- List authors with affiliations
- Optional: Contact information
- Motivation - Most important
- Introduction
- Theory, Methods, and Data
- Analysis - Separate from Data
- Results
- Conclusion (not identical to results)
- References
- Acknowledgements/Logos/funding

Equations

Insert equations. Avoid asterisks * for multiplication and carets ^ for powers. Use the equation editor. Example:

$$P = \sigma A e(T^4 - T_{oc}^4)$$

Define variables:

P = Power A = area
T = Temperature ... etc.

Data

Tables and Data Presentation

- Tables are often not the best way of showing results.
- Graphs are easier to read.

| Measurement | Typical Value | Typical Uncertainty | Fractional Uncertainty |
|---------------------|---------------|---------------------|------------------------|
| Voltage - Measured | 1.00 V | 0.02 V | 2 % |
| Voltage - Reference | 1.1 V | 0.1 V | 9 % |
| Frequency Shift 1 | 1140 Hz | 41 Hz | 4 % |
| Frequency Shift 2 | 1081 Hz | 32 Hz | 3 % |

Table 1. Label tables and figures so that readers can understand them even if don't mention them.

Analysis

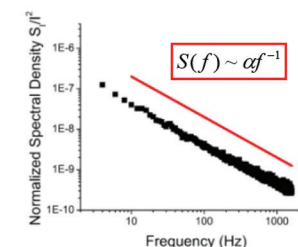


Figure 1. Graphs should be large, easy to read, and not cluttered. Beneath, text which explains the graph can be helpful but is not always necessary. If there is a data fit or guide, put that equation on the graph.

Results

- Summarize the results of your data
- Relate to motivation and introduction
- Clearly state the significance to the broader field and the general public
- Report key values and relationships

Pay particular attention to your audience.

Only keep results that support the main poster message

Provide a clear, logical flow of information.

Keep it simple and straightforward

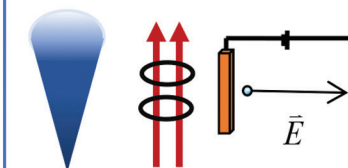


Figure 2: If you want to add Figure captions, they can be small. Keep them short and simple. Label!

Conclusions

Takes a long time to make a good poster

- Seek revision
- Receive feedback from collaborators
- Be clear, concise, and directed

References

Cite your sources! Any images you use should be cited if you didn't draw them. Here is an example:
1. B.R. Conrad, W.G. Cullen, W. Yan, and E.D. Williams, Percolative effects on noise in pentacene transistors, Appl. Phys. Lett. 91, 242110 (2008)

Acknowledge funding

SPS travel award 2017 & support from Student Research Office

4. FIGURES & PHRASES

- Figures should be large, clear, and well labeled.
- People will not read paragraphs of text.
- Use phrases and bullet points.
- Keep text to the essentials.
- Include only just enough information for someone to follow along if you are not there.

5. PROFESSIONALISM

- Don't ignore anyone.
- Let people ask you questions.
- Don't speak over them.
- Dress to impress.
- Never eat while presenting.
- Don't have note cards.
- Thank people for speaking with you.

6. FOCAL POINTS

- Motivation - Provide a clear motivation for your research.
- Make sure you have all the necessary figures You never want to think in the middle of your poster session, "Oh, I wish I had a figure which explained that."
- You need to practice your poster explanation several times. Ask both colleagues & non-experts.

7. DESIGN

- Posters are read left to right, top to bottom.
- Three column designs are common (see figure).
- Less is more. Stick to the message.
- Results and conclusion go on the right side of a poster.
- Put references and acknowledgments at the bottom.
- Either make all your own figures (preferred), or cite them appropriately. Avoid plagiarism.
- Favor graphs over tables.

For more information on preparing an effective presentation, see "Preparing an Effective Presentation" on p. 28