Information for SLAC Public Lecturers

SLAC Public Lecture Committee

In the 21st century, it is important for scientists to be able to explain their work to the general public and to groups of people with little scientific background. The goals of the SLAC Public Lectures are, then (1) to entertain members of our local community with the amazing ideas and discoveries that the lab is generating, (2) to provide a record at the public audience level of research being carried out at SLAC, and (3) to provide an opportunity for SLAC scientists to hone their skills in communication.

We encourage all members of the SLAC community to volunteer to give Public Lectures on their research topics. This invitation includes SLAC users and Stanford scientists who collaborate at SLAC. Those interested in giving a lecture should contact Rachel Isip, the SLAC Outreach and Events Manager (rachel.isip@slac), or Michael Peskin, the chair of the Public Lecture Committee (mpeskin@slac).

Presentation of the Public Lectures

SLAC Public Lectures are held in the Panofsky Auditorium in building 53, on Tuesday evenings at 7:30 pm. The lectures are held bimonthly, in January, March, May, July, September, and November. The lectures are typically held on the last Tuesday of the month, though this date could be moved forward or backward by a week to be scheduled more conveniently.

Each lecture lasts 50 minutes, followed by 15-20 minutes for questions from the audience. After the lecture, the lobby of the Panofsky Auditorium remains open for further informal discussion. The capacity of the Panofsky auditorium is about 400. Typically, the auditorium is half to almost completely full for the Public Lectures.

The SLAC Public Lecture web site is:

    https://www6.slac.stanford.edu/public-lectures

Each lecture is recorded, with the video posted on the SLAC YouTube channel:

    https://www.youtube.com/playlist?list=PLFDBBAE492FBAF753

A complete list of past lectures, with links to the videos, can be found at:

    https://www6.slac.stanford.edu/community/past-lectures

Past lectures have received between 2,000 and 35,000 views on YouTube.

Preparation of the Public Lectures

Public Lectures are prepared on the following timeline:

- *months before the lecture*: With the approval of the Public Lecture Committee, a member of this committee should invite the speaker and give him or her a copy of this information sheet. That person will also take responsibility for being the contact linking the speaker to the committee and the Communications staff.

- *6 weeks before the lecture*: meeting of the lecturer with the Public Lecture Committee and Communications staff. The purpose of this meeting is: (1) to discuss and refine the "story" to be told in the lecture, (2) to propose a title and storyline that will attract a large audience, (3) to view some slides from the speaker that might appear in the presentation, and (4) to discuss graphics for the lecture poster. Also, the speaker should formally consent to have his or her lecture recorded and posted on the web.

- *5 weeks before the lecture*: preparation of advertisement materials. These include a finalized title, an abstract of about 5 sentences, written at the public audience level, and a biographical sketch of the lecturer, also about 5 sentences. The title, abstract, and bio are refined by discussion over email with the Public Lecture Committee. The materials also include a poster whose design is worked out between the lecturer and the SLAC Graphic Design Services team, with input from the Public Lecture Committee. These materials should be completed so that they can be posted at the Public Lecture web site and other science-related bulletin boards at least 4 weeks before the lecture.

- *1 1/2 weeks before the lecuture*: a rehearsal with the Public Lecture Committee and Communications staff. This rehearsal takes place in the Panofsky Auditorium. It is a full run-through of the lecture, followed by general and slide-by-slide discussion. About 1 1/2 hours should be reserved for the presentation and follow-up.

- *3-4 days before the lecture*: checkout with the Audiovisual group, in the Panofsky Auditorim. We assume that you will show the lecture slides from your personal laptop. It is important to check that your laptop is compatible with the AV system in the Panofsky Auditorium, and that videos and other dynamic elements in the slides run correctly there.

- *1-2 days before the lecture*: invite 2-3 colleagues to attend the lecture. These should be people who, when the lecture is over and the audience has adjourned to the lobby, can answer questions about the subject of the talk.

- *1/2 hour before the lecture*: setup in the Panofsky Auditorium

- *7:30 pm Tuesday evening*: you are on!

Guidance for Preparing a Public Lecture

We have found it useful to keep the following points in mind in preparing a Public Lecture:

- Aim the level of your presentation to be accessible to all. The Public Lecture audience is diverse. It includes everyone from local middle schools students and their parents to retired Silicon Valley engineers. Do not assume scientific knowledge beyond what middle-aged people are likely to remember from high school. Do not shy away from presenting more sophisticated ideas, but take care to explain them properly.

- One of the attractions of the Public Lectures is exposure to the coolness of being at the frontier of science. Spend at least part of the lecture talking about what you are actually doing in the lab and how it goes beyond what was previously known.

- Let the audience know that you have a personal stake in the material that you present. We suggest that you begin your lecture with a few words on how you came to be affiliated with SLAC and to be involved with this research.

- Organize your talk around a story that you wish to tell. What is the fascinating question that you are pursuing? What are the twists and turns as the details are filled in? What is the final insight? What are the broader implications of your results or hopes for the future?

- Think carefully about your vocabulary. Make a list of the technical terms that appear in your talk. Decide which of these terms can be eliminated from the lecture, and which are essential and must be explained. Avoid acronyms to the maximum extent possible. Dedicate at least one slide to explaining each technical term that is needed for your presentation.

- Similarly, think about the basic scientific concepts needed to describe your subject. Pick out the three or four most important concepts, and devote a slide or two to explaining each. Use analogies and real-world references to make abstract scientific concepts more accessible.

- Minimize the number of words on each slide. Ideally, each slide would contain an image and no words, and you would explain that image. Do not put yourself in a situation in which audience members must read text on a slide while you are talking.

- Graphs are good, but they must be sufficiently simple. Redraft figures from your papers or from the literature to make what is being presented clear to a public level audience. Relabel the axes to avoid technical terms. Each graph should tell its story directly. Omit the reference to the literature for the graph; this is extraneous and potentially distracting verbiage.

- Scan your presentation for statements that might potentially be offensive to some members of the community. Once posted to YouTube, your presentation will be on the web forever.

- Since one of the purposes of the Public Lectures is to advertise research at SLAC, please make your connection to SLAC explicit. It would be good to have a slide with a photograph of some equipment that is here on the SLAC site.

- It works well to end your talk with a photo of your research team, maybe also in your lab at SLAC.