Further hints on giving talks
By Cole Miller

1. Tell a story

Think about how a good short story goes. There is a beginning, in which the stage is set and the potential crisis is laid out, a middle, in which the characters are developed and the crisis is made clearer, and an end, in which the crisis is resolved. That's not a bad way to set up the structure of your talk. In the beginning, you give context and, if there is a problem you intend to resolve, set up the problem. In the middle, you develop details while not losing sight of the problem. In the end, you resolve the problem. Not every talk can be like this (for example, sometimes you are giving a status report), but if you can bring the audience along with your story, you're most of the way there.

2. Know your audience

If you're talking about the stars, you wouldn't give the same talk at a conference that you would to a group of third graders. Finer distinctions apply, too: if you are at a specialty conference, your audience already knows much of the background, so you can pitch it more to experts than if you're giving a talk at the AAS winter meeting. If you are giving a colloquium at a university, know which professors in your field are at that university, and what has been accomplished there in your subject. People always like it when you pay homage to their triumphs!

3. Think about what you want to accomplish with the talk

There are many things you can imagine wanting to do during a talk. For example, you may be mainly presenting yourself. This is often the case, especially for more junior people. Then, make sure that your audience understands that (1) you can give a good talk, and (2) you're an expert in what you are doing. For (1), a comprehensible overview is important. For (2), present your own work and aim it at the higher-level audience members. If you simplify things too much, some people will conclude that you aren't doing serious science. If you barge straight into the details, you will lose most of your audience, which is also bad.

You also may need to convince people that the topic of your work (and not just your work itself) is interesting. If you're working on the chemistry of the interstellar medium and talking about it to a group of cosmologists, this might take some doing. A useful approach is to make links between your topic and something they'll think is definitely interesting (e.g., fundamental physics, the formation of the first generation of stars, or whatever).

If you are part of a team effort, remember that you represent the team whenever you give a talk about results from the team. You should then endeavor to explain why the whole team effort, in addition to your individual work, is important.

4. Emotional tone is important

This is especially true in a short talk, where your audience won't be able to absorb much more than one or two points and the emotional tone. Regardless of the results you present, if you use words or body language that indicate that the work is irrelevant or tedious, that is the *main* impression that will come through. Once it does, the audience will turn off. Instead, convey enthusiasm and a feeling that the results are important. This, too, will be felt by the audience, and it will make them more receptive to further points. In some cases you may be involved in a scientific dispute; for example, after your talk, someone may ask an aggressive question. The same principles apply: most of your audience may not understand the scientific issues, but they will see how you react. If you are defensive or aggressive in return, your audience will remember that, to your detriment. If you are friendly and confident, you will have points in your favor.

5. Humor

To paraphrase Dr. Watson's comment about violin-playing, "Well-done humor is a treat for the gods — badly-done humor (shudder)". If humor is forced it is a problem, but natural humor in the flow of a talk adds a lot to a presentation. Appropriate jokes, Far Side cartoons, whatever. As with anything else, though, it needs to be a logical part of the presentation; veering off the main subject of your talk to tell "knock, knock" jokes is a mistake! Also, remember that many members of your audience may not be native English speakers.

6. Pay attention to talks you attend

When attending a talk, think about the good and bad things the speaker does in the presentation as well as the scientific content of the talk. This can help time pass during a bad talk! More importantly, consciously focusing on style will quickly give you a lot of practical experience in what makes a good talk, and you can form your own rules.

7. Check out the equipment before giving your talk

Transparency and slide projectors, computer connections, microphones, etc. have a life of their own. Take a little time before your talk (or before the session, if at a conference) to make sure you know where the pointer is, where to stand to not block projection, and so on, so you don't fumble around and waste time. If you are in a conference session, watch other speakers so you can be reminded of and avoid problems.