# Ten Secrets to Giving a Good Scientific Talk

#### You

### February 14, 2014

# 1 Introduction

The text for this exercise is a significantly abridged, and slightly modified, version of the excellent article of the same name by Mark Schoeberl and Brian Toon: http://www.cgd.ucar.edu/cms/agu/scientific\_talk.html

## 2 The Secrets

I have compiled this personal list of "Secrets" from listening to effective and ineffective speakers. I don't pretend that this list is comprehensive - I am sure there are things I have left out. But, my list probably covers about 90% of what you need to know and do.

- 1. Prepare your material carefully and logically. Tell a story.
- 2. Practice your talk. There is no excuse for lack of preparation.
- 3. Don't put in too much material. Good speakers will have one or two central points and stick to that material.
- 4. Avoid equations. It is said that for every equation in your talk, the number of people who will understand it will be halved. That is, if we let q be the number of equations in your talk and n be the number of people who understand your talk, it holds that

$$n = \gamma \left(\frac{1}{2}\right)^q \tag{1}$$

where  $\gamma$  is a constant of proportionality.

- 5. Have only a few conclusion points. People can't remember more than a couple things from a talk especially if they are hearing many talks at large meetings.
- 6. Talk to the audience not to the screen. One of the most common problems I see is that the speaker will speak to the viewgraph screen.
- 7. Avoid making distracting sounds. Try to avoid "Ummm" or "Ahhh" between sentences.
- 8. Polish your graphics. Here is a list of hints for better graphics:
  - Use large letters.
  - Keep the graphics simple. Don't show graphs you won't need.
  - Use color.
- 9. Be personable in taking questions.
- 10. Use humor if possible. I am always amazed how even a really lame joke will get a good laugh in a science talk.