

I am constantly surprised at just how bad most conference, colloquium and job talks are. I am even more surprised that many speakers make the same, preventable, mistakes. Here I enumerate what I consider to be some of the most important things that you can do to give a good talk.

1. **Don't overwhelm your audience.** It is better to clearly explain one or two main ideas than to cursorily cover four or five ideas. In a one hour talk, your audience can only absorb one or two central ideas - if you try to cover several years worth of work, they are going to be overwhelmed and will stop paying attention. Decide what you think are the one or two most important ideas in your work and present them clearly. At the end of your talk you can briefly discuss other aspects of your work, and refer interested individuals to your papers.
2. **Talks are different from papers.** While you must explain the details of your work in a paper, this is not necessary in a talk. The primary goal of a talk is not to explain every detail of your work. It is preferable to leave out particularly complicated or notationally heavy details that are not critical to the understanding of the basic concepts. It is more important to explain the general concepts, build intuition, and then allow those that are interested to read your papers to get all of the details.
3. **Structure.** Your talk should consist of the following components: (1) introduce the problem that you are working on (for a specialized audience, this can be very brief); (2) explain why this is an interesting or important problem (again, brief if your audience are specialists in your area); (3) describe what previous work has told us about this problem; (4) describe the specific problem that you are going to solve; (5) explain how you solved this problem; (6) explain how your work pushes forward our thinking or understanding; (7) discuss what, if anything, are the remaining open problems. By the way, I think that "outline" slides at the beginning of a talk are silly - they all are exactly the same and are a waste of time.
4. **Be gracious and honest.** When talking about the work of others, be gracious. When talking about your own work be honest. Be particularly honest about any weaknesses or shortcomings in your work - if your audience senses that you are not being honest, they can become aggressive and confrontational.
5. **Simplify your slides.**
  - Minimize the amount of text on each slide. If you have too much text on your slides, then you create a conflict for your audience - should they listen to you or should they read? They will, most likely, read and ignore what you are saying. Whenever possible use a picture or figure instead of words.
  - Minimize the amount of information on each slide. A good slide contains a simple figure, graph, or equation.
  - Minimize the amount of mathematical notation. Your audience cannot hold onto too much new notation, so try to minimize notational complexity or remind your audience every once in a while about the notation.
  - Be consistent with font size, notation, and style. Don't get fancy with colors, fonts or backgrounds (they are distracting) - black text on a white background, and color only when you need to emphasize something.
  - If you use PowerPoint, try to break free of the templates provided by this software - they are ugly and lead to text-heavy slides. And, do not use any of the PowerPoint features such as sound-effects or fade-ins - they are silly and distracting.

6. **Explain your slides.** For a graph, explain the axes, and what is being plotted. For an equation, walk through it carefully explaining the variables and any special notation. For a figure, explain the various components. When describing specific things on your slide, walk to the front of the screen, if possible, and point at your slides (with your hand).
7. **Speaking.** Speak clearly and loud enough to be heard at the back of the room. Don't stare at your shoes or slides while you are talking. Your talk is a chance for you to share with your audience work that, I presume, you are excited about. Don't force any particular style onto yourself, but do try to stay relaxed and have fun.
8. **Opening & closing lines.** The beginning and end of a talk are, in some ways, the most difficult. Memorize the first two and the last two sentences. Do not, however, memorize or read your talk. It is intensely boring and difficult for your audience to follow when being read to. And, don't ever start with a joke - in fact, don't tell jokes, they usually aren't funny.
9. **Practice, practice, practice.** Your first practice talk will be terrible, your second one will be less terrible, your third practice talk will be acceptable, and, if you are lucky, your fourth practice talk will be good. You should give at least one of these practice talks to colleagues that don't know your work very well, thus simulating your eventual audience.
10. **Time your talk.** A conference talk is fairly easy to time because at most conferences, questions are held to the very end. If you are allotted 30 minutes for your talk, you should leave 5 minutes at the end for questions. You absolutely should not run late. For a colloquium or job talk, it is more difficult to predict the timing, since you may or may not be interrupted with questions. To accommodate this variability, your talk should be somewhat fluid where, if you are running late, there are a series of slides that you can skip over, without disrupting the logic of your talk. If you are running late, do not try to cram in the last few slides by talking very fast - simply say "as time is short, I will skip over this part. For those interested, please come talk with me afterwards".
11. **Laser pointers.** Do not use laser pointers, unless absolutely necessary. If you do use one, put it down when you are not using it, otherwise you will wave it around in a meaningless and annoying way.
12. **Listen to the question.** Listen carefully to what is being asked - do not try to formulate an answer until you are sure that you understand the question. If you are unsure of the question, repeat the question to make sure that you understood it correctly (this also gives you some extra time to think of an answer). At a conference it is often difficult to hear the question at the back of the room, so repeat a condensed version of the question for those that didn't hear.
13. **I don't know.** If you do not know the answer to a question, simply say "I don't know" or "I'm not sure" - this can be followed-up with something that you think might speak to the question. This is far more preferable than trying to scramble for an answer and saying something incoherent.
14. **Thank you.** Say "thank you" at the end of your talk so that the audience knows that you are done and that they should applaud.