Before you make your slides:

- Get to know your audience. To whom are you speaking? What is their knowledge base? If graduate students are in attendance, what courses have they likely taken? What key message / story would you like to tell to the audience?

The talk:

- (Optional) A Tutorial. *(Everybody follows.)*
  - If your talk uses math or technical content that is not common knowledge for the audience, create a brief up-front, stand-alone tutorial on that topic containing sufficient knowledge to follow at least 1/3 – 2/3 of the talk, at a broad level.

- (~10 min) The Problem. *(Everybody follows.)*
  - What is the problem? (Just the problem. Include nothing about solutions here.)
  - Where does this problem arise? (Why is it an important problem?)
  - Why is the problem hard?
  - **Do not proceed until the audience fully understands the problem and its context.** Seek audience confirmation. Ask for questions, and then pause for at least 10 seconds. (Practice how it feels to wait for 10 seconds. Count in your head if it helps.)

- (~5 min) Existing Solutions.
  - What has been done already to solve this problem? *(At least people in your area follow, if not everybody.)*
  - What gap remains in this work? *(Everybody follows.)*
  - What is YOUR research contribution to fill this gap? *(Everybody follows.)*

- (~30 minutes, minus tutorial time) Your Solution.
  - Distill the essence of your contribution 1 or 2 sentences that an undergraduate would understand. State it up front and at the end. *(Everybody follows.)*
  - What is your solution?
    - *Up to 15 minutes of this portion (but no more!) can be used to showcase your competence, although people in your area should retain a broad idea of what you are doing. *(Nobody follows completely, but people in your area retain the broad idea.)*
    - Why is your solution innovative? *(At least people in your area follow, if not everybody.)*
    - What is the impact of your solution? *(At least people in your area follow, if not everybody.)*
    - How does it compare to the other solutions? *(At least people in your area follow, if not everybody.)*
    - **Use copious pictures!** Outside of the 15 minutes in which it is okay if almost nobody follows, avoid math-only slides. Math + picture slides are great, as long as you provide detailed explanations for all notation.

- (~5 min) Where will you go from here? *(Everybody follows.)*
  - Tell the audience again what you have accomplished. What work remains on this topic?
  - What are its potential applications?
  - How do you see yourself as a researcher, and what questions are you interested in pursuing next?

- (~10 min) Questions.
  - **Do not run over!** Running over time gives the impression that you (i) do not respect the audience’s time, or (ii) did not prepare, or (iii) cannot rise above the details enough to tell a story in 50 minutes. All of these are very very bad.