Clear, Concise, Compelling:
How to Present your Science to Best Effect

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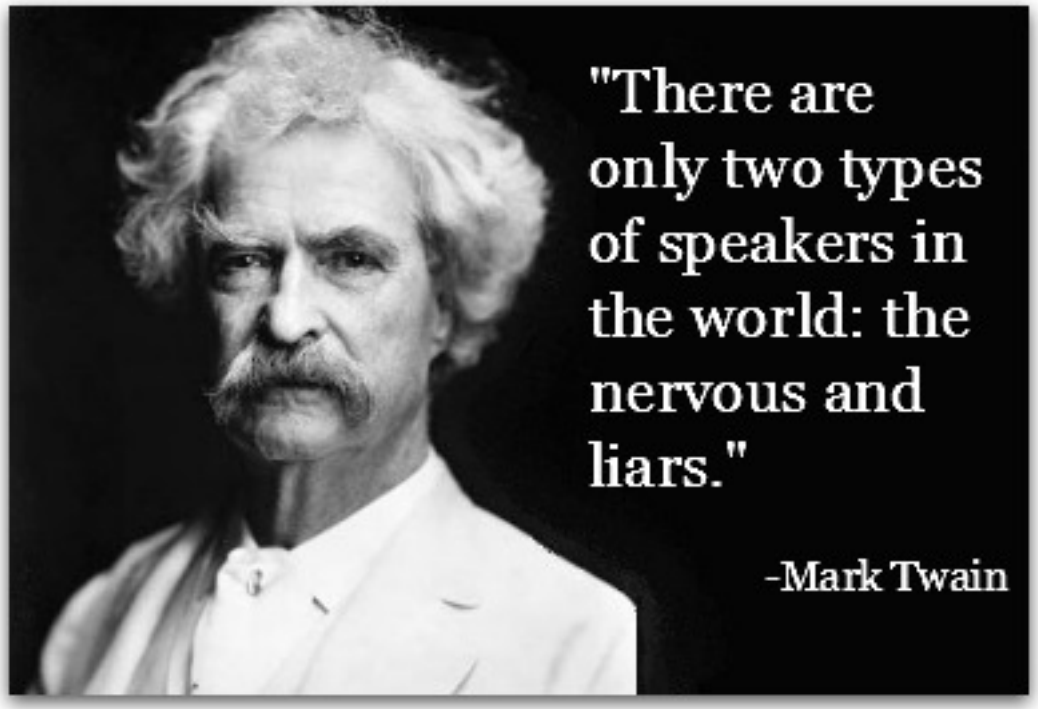

Task: Open Day Talk

Some high school students are visiting your university (16-18 years old).

You have **one minute** to describe **one** of the following:

1. **Your research project/thesis**

2. **What your research group do**

3. **A recent exciting discovery in your field**

What makes a **bad** talk?

What makes a good talk?

How to deliver you talk

Voice and delivery

Body language

Anatomy of a Talk

Good introductions

The body of the talk – tips

Answering Questions

Dealing with nerves

The Elevator Pitch

Presenting your science in 3 minutes

How to deliver you talk

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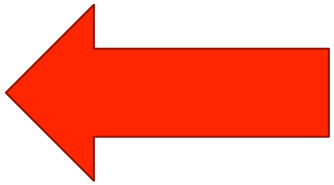

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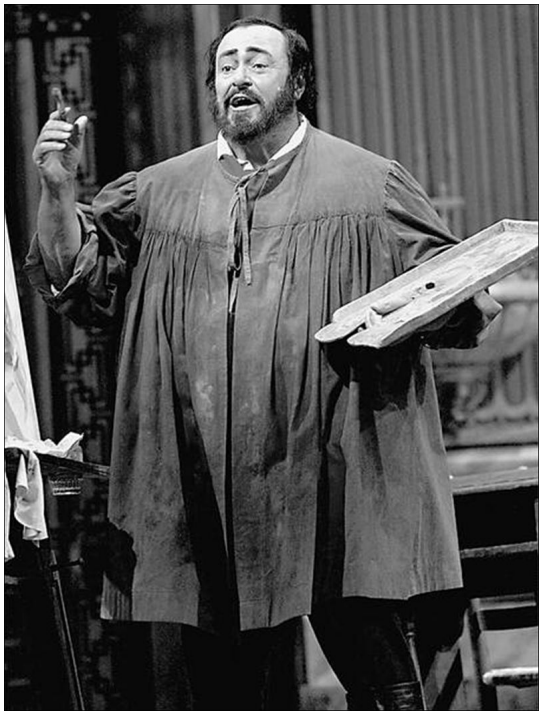
How should you sound?

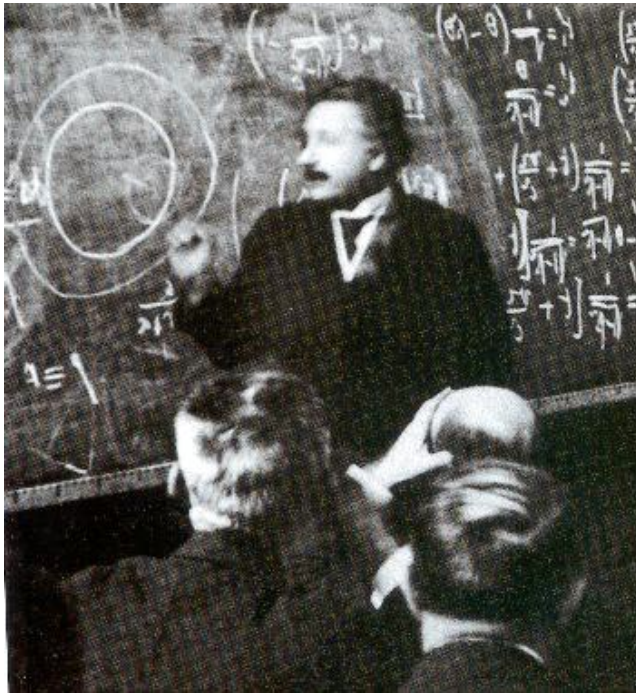
- **Good posture**
- **Pitch!** Try not to squeal! (words aren't as audible)
- **Vary the tone** – not all flat
- Don't shout, but be audible – speak to the person in the corner of the room
- Don't cover your mouth
- Practice words that you find difficult (and include them in your slides in some cases)



Very Special Relativity: The Pause

- Pauses **appear much longer to you** than they are to your audience

- **Why bother?**
  - Increase impact and emphasis
  - Give the audience a break
  - Give yourself a break!
  - Can recover if you are lost



5-10 second breaks at appropriate times

Can put a reminder into your slides

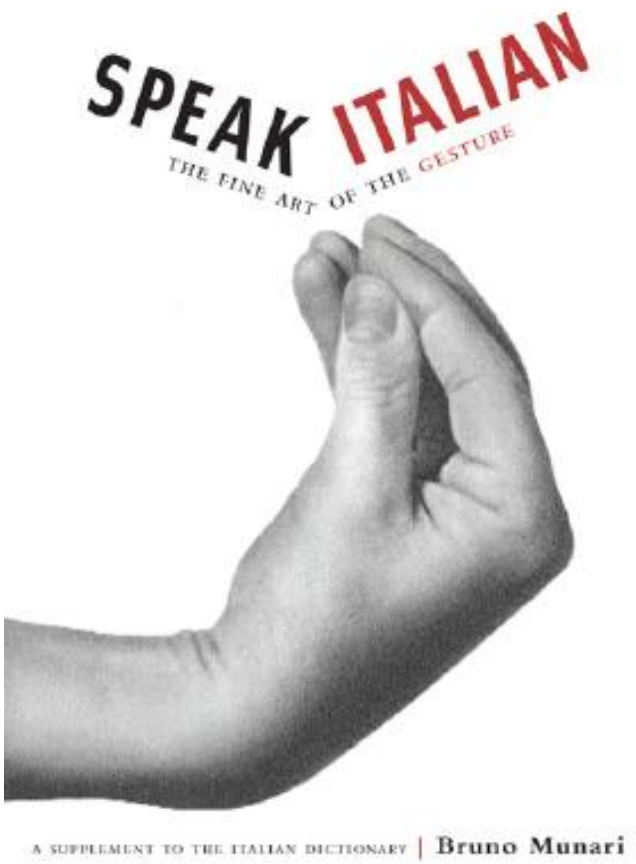
Facial Expressions and Eye Contact

- There’s no wrong way
- Be genuine
- **Eye contact** with every part of the room – don’t fixate on one corner or person

Your Body Language

- Dress appropriately
- Be aware of your posture

Keeping it Lively: Gestures



- Makes a talk very lively
- Practice in front of a mirror
- Use gestures congruent with words
- Examples:

  - One on hand, on the other hand

  - As we lower the temperature, the percentage increased

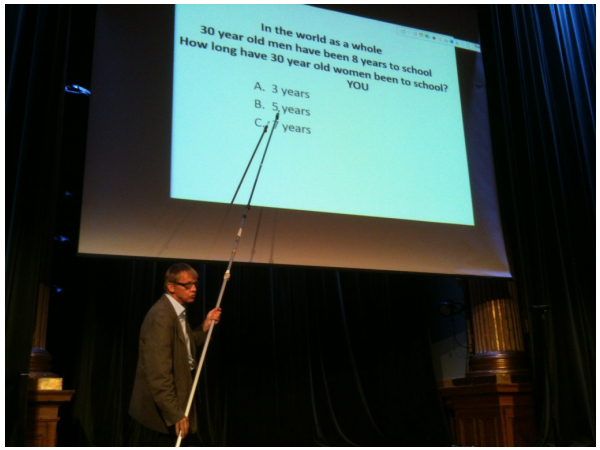
  - I would like to give a broad outline and then give some details

Making use of the stage

- Try not to stand in one spot the whole time (for longer talks)
- No nervous pacing
- Move to interact more with your audience

Friend or Foe? *The Laser Pointer*

- Can be a good alternative to cumbersome sticks/pointers
- Use it sparingly!
- Be careful of shaking hands
- Hold the pointer in place for long enough



Things to Avoid

- Covering your mouth
- Crossing your arms
- Fidgeting, or playing with things: have a strategy!
- Reading your slides
- Watch out for cables
- Empty your pockets
- Familiarize yourself with equipment

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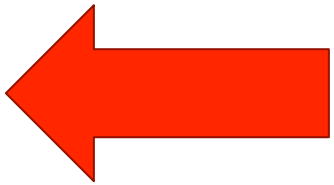


The Elevator Pitch

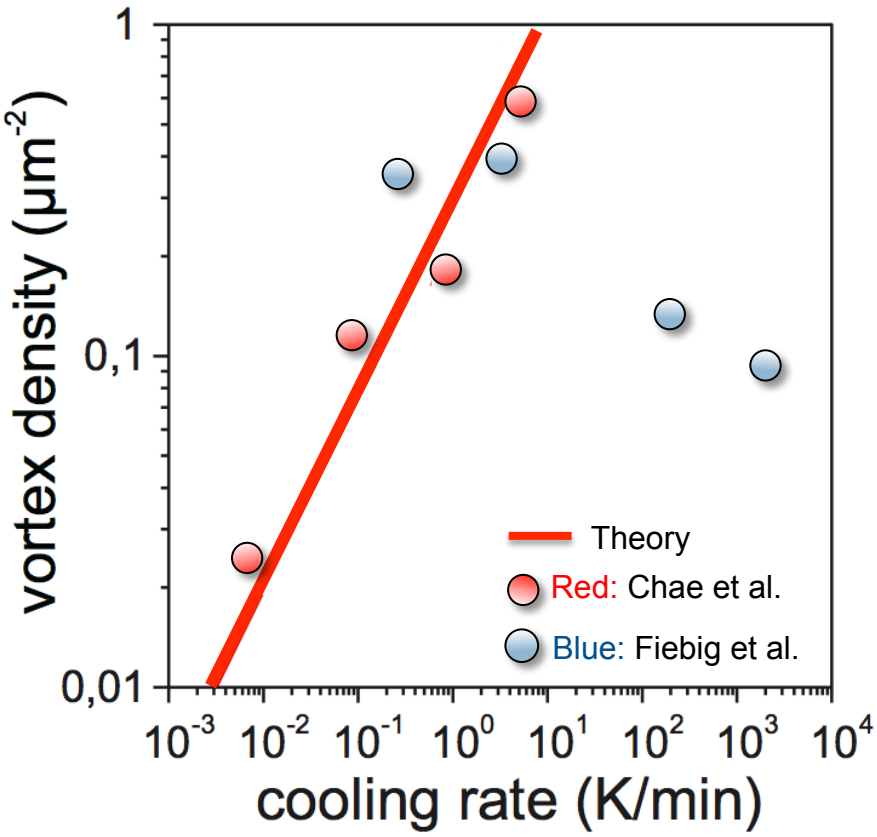
Presenting your science in 3 minutes

Have a confident beginning

- Dress appropriately
- Check that your laptop works before your talk
- Organise/check a pointer
- Courtesy of Kings: be on time!
- Before you start look around the room and make some eye contact. Familiarize yourself with the room.
- Check your posture, smile!
- Thank the chair/ Introduce yourself
- **KNOW THE BEGINNING BY HEART!**

Graphs are Easy…

1. Explain in general what you have plotted (description of the title)
2. Describe your x-axis with units, and your y-axis with units
3. Point out the different lines/features of your graph and the legend
4. Explain the key features of your graph in more detail
5. Reference



Chae et al. PRL 108 10242 (2012)

…and the end: Questions!!!

This is **your** research, you know what you have done

What is I don't know the answer?

- Ask them to rephrase/clarify the question
- Acknowledge their point and say that you can discuss it after the talk
- It's ok to say you don't know!
- If it's not relevant, address why it's not and move on
- You can repeat the question out loud to give yourself time to construct an answer

And finally have a definite, pre-planned ending, and thank everyone.

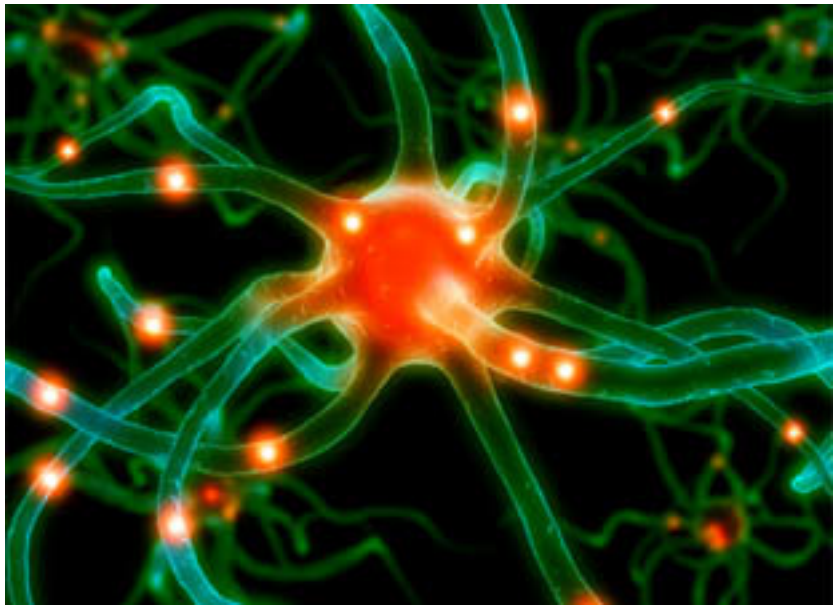
Practice Makes Perfect

- On your own, with your research group, colleagues
- Pay attention to the beginning, the ending, and the transitions between slides

Aspect	Comments
Head Structure, clarity, easy to follow, language, articulation	
Hand Posture, gesticulation, eye contact, use of visual aids	
Heart Sincerity, personal style, in touch with listeners, enthusiasm	
Other observations	

Dealing with Nerves: Tips and Tricks

- Practice!
- Nerves are a good thing: use them to your advantage
- Concentrate on speaking clearly and loudly
- Adopt a confident posture (even if you don’t feel that way!)
- Eye contact and a smile at the beginning



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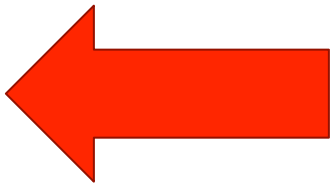


The Elevator Pitch

- Open days
- Attracting students
- Funding
- Journalists
- Generally explaining what you do

The most important thing is...

The most important thing is…

The Beginning!

- ONE point, question or statement
- Should summarize what you'll talk about
- **Make it engaging for your audience**

How it’s different from a usual scientific talk

- No slides
- Very short!
- Your audience will probably not understand your scientific jargon
- You have to convince the audience that they want to listen to you
- You need to know the structure of your talk in your head (again, can’t rely on slides)

How to Open Your Talk

1. An interesting piece of evidence or fact

   Particle accelerators are used to dry the paint on soft drinks cans.

2. An anecdote about you or something the audience will be familiar with

3. Statement or Question that you will address – build suspense

4. Something funny

5. A scenario (Imagine that …)

Above all, make sure it's interesting!

The audience will decide whether or not to pay attention to the rest of your talk in these first 30 seconds, so don't give them an excuse not to.

Some good openers

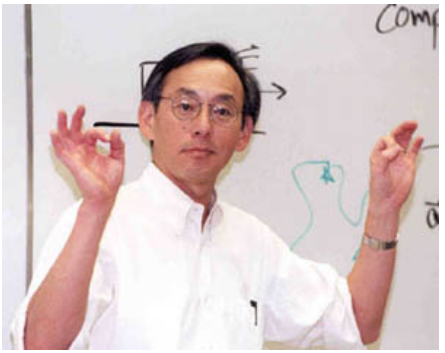
- Clip – Tom Whyntie (famelab winner 2009)

- **Queen**'s Speech at the 40th Anniversary to Her Succession:

"1992 is not a year on which I shall look back with undiluted pleasure. In the words of one of my more sympathetic correspondents, it has turned out to be an 'Annus Horribilis'. I suspect that I am not alone in thinking it so."

- **Steven Chu** at Commencement Address of Ponoma College:

"*Normally, commencement speakers are like corpses at an Irish wake — we're needed for the ceremony, but no one expects us to say much.*"



What should you talk about?

- Something that you find interesting
- Something that you know a lot about
- Something you can explain in under 1/2/3 minutes!

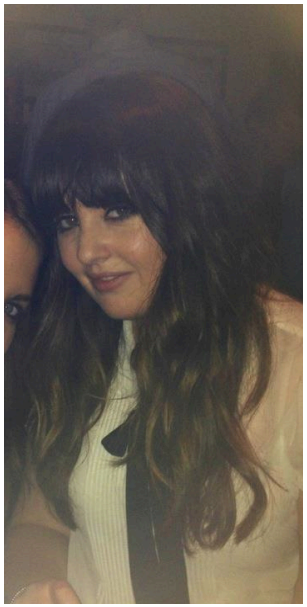
Your talk should answer ALL of the following questions:

1. *What is it?*
2. *Why is it important or interesting?*
3. *Why does it matter to the audience?*

Who are your audience?

For a general, but intelligent, audience:

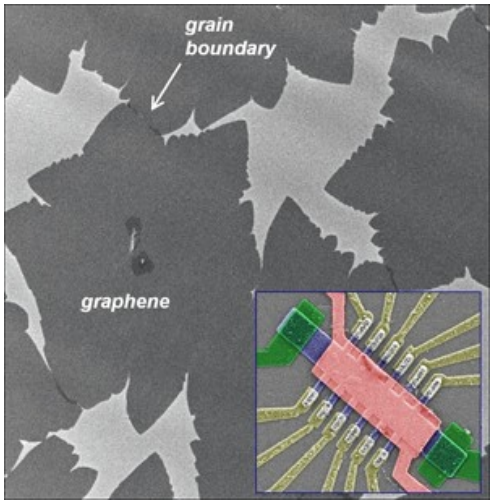
- Absolutely **no jargon** – explain every term you use
- Don’t assume any knowledge
- Take the audience by the hand and guide them through your talk
- Have an Emma in mind



Structuring Your Talk

Zooming

- Start from a broad concept
- Add layers of detail
- Ending zoom out again

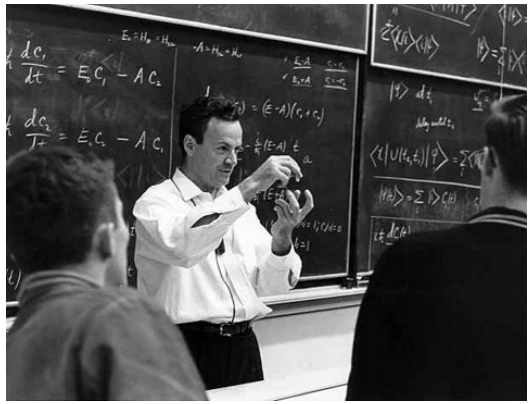


OUTLINE

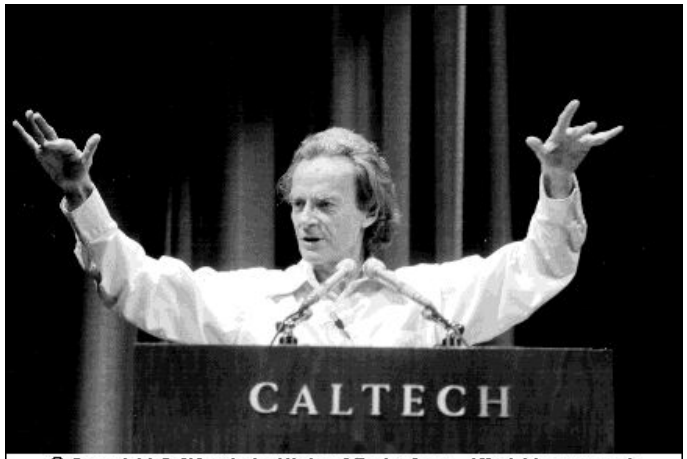
- Opening: Statement/Question, etc.
- Up to 1 minute of introduction (anecdote, scenario, etc.)
- Zoom in: Explain the concept in a simple manner (and repeat if necessary)
- Zoom out: Summary and link back to beginning

Making it Interesting

- Suspense and conflict
- Very relevant examples that the audience will relate to
- Strong, vivid language
- References to history, art, music, etc.
- Gimmicks?



- *Physical Presence:*
  - Try not to fiddle with anything or cause distraction
  - Address the whole room (and not just one person)
  - Move a little (but not too much)
  - Gesture and use your hands



Something things to Avoid…

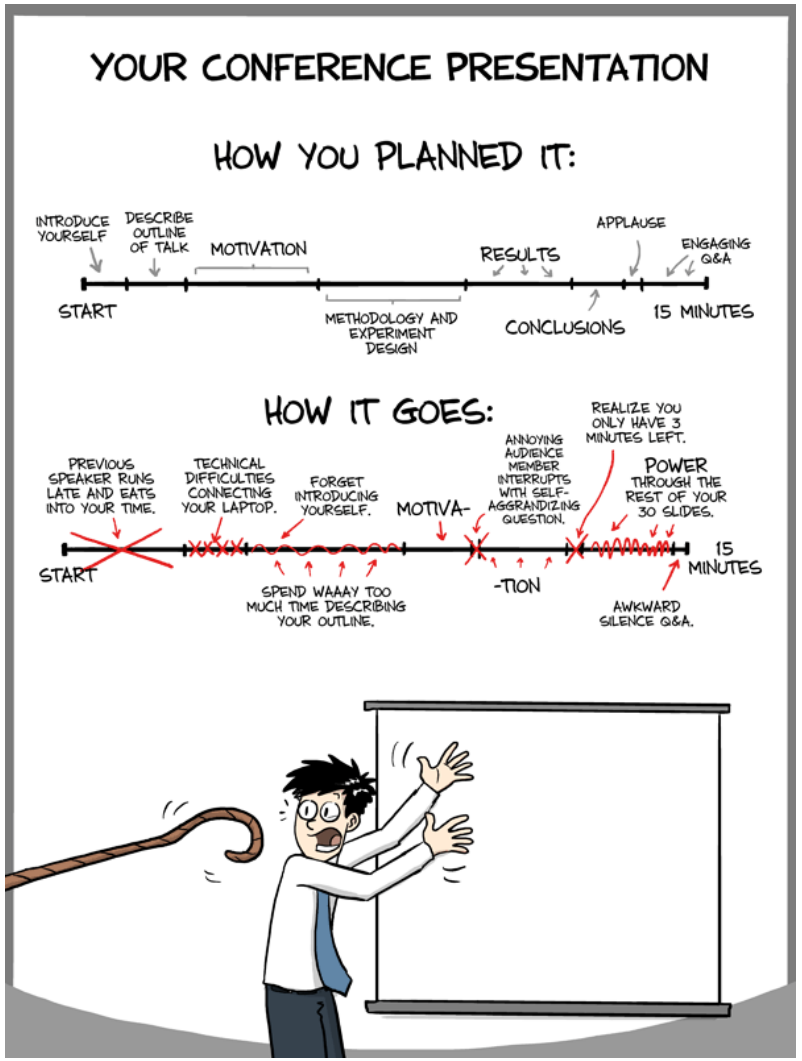
- Trying to be funny and failing!
- Jargon
- Saying something is ‘cool’, ‘really interesting’ or ‘fascinating’
- Telling the audience what they should think about something

How to improve

- Practice!
- Watch some excellent speakers:

  ted.com

  fallingwalls.com
- Ask for feedback



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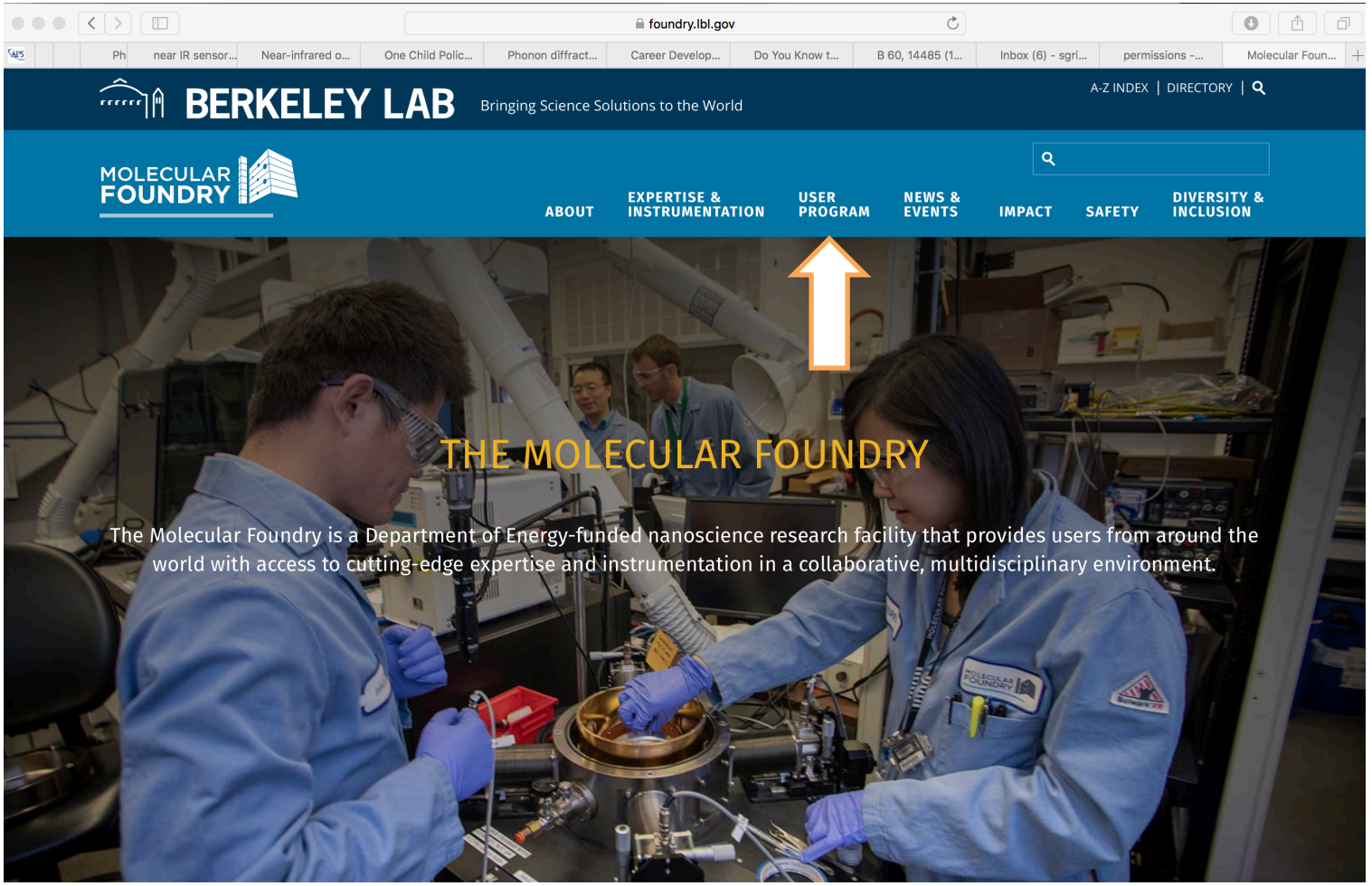

P.S. Use of the facilities is free for academic use

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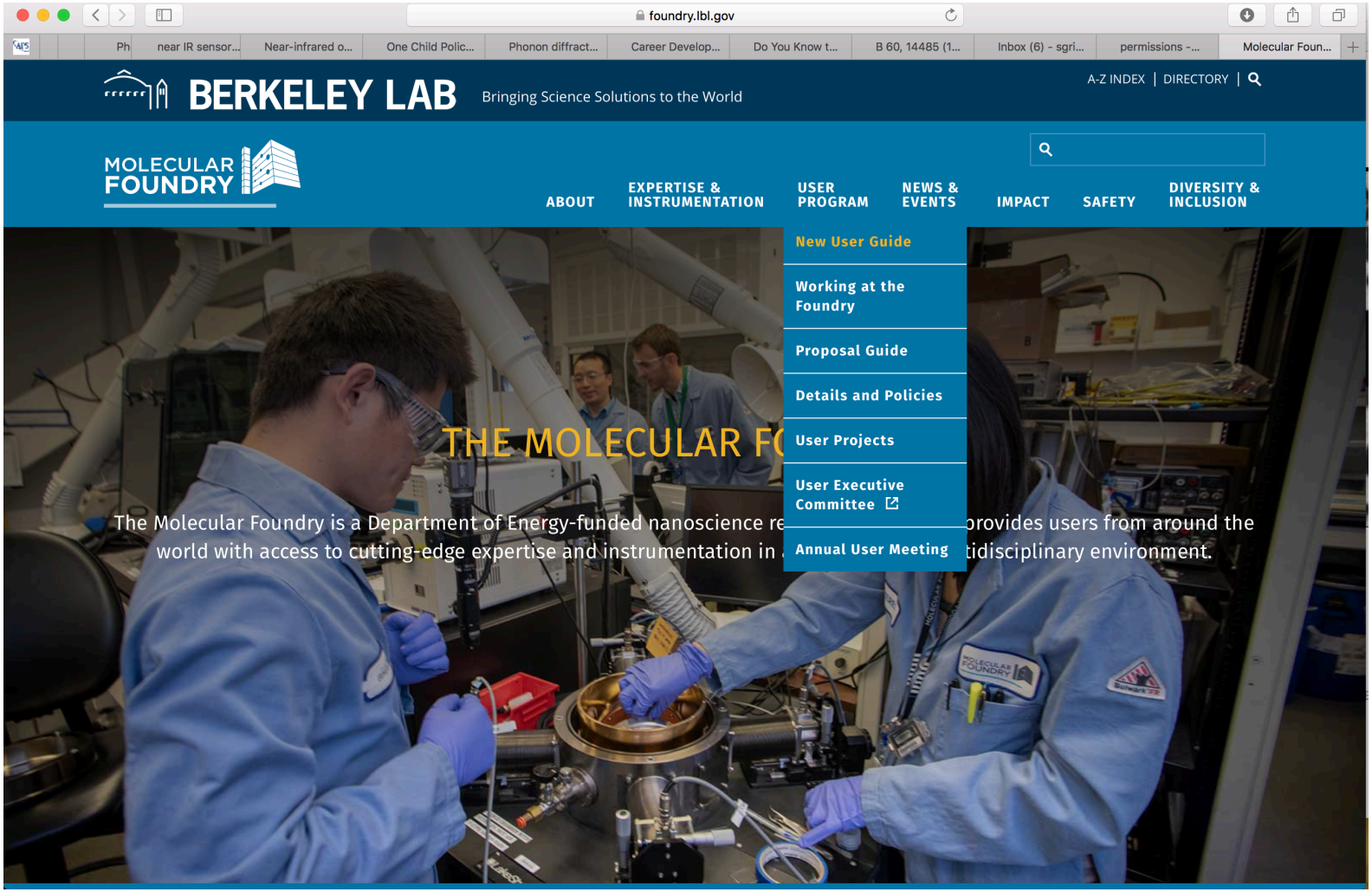
Have a look at the New User Guide



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Contact the relevant staff member