



# Introduction to Delivering Good Conference Talks

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# Motivation

- Why give conference talks?
- What are the goals of conference talks?

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- What are the goals of conference talks?
  - Exchange information
  - Marketing – leaving a positive impression
    - The technical work
    - Employer or sponsor
    - Presenter and co-authors
  - Networking
  - Build up your curriculum vitae or resume
  - Career advancement
  - Enjoyment

# Outline

- Getting your paper accepted
- Preparation of the conference talk
- Delivering your conference talk
- Following through on your conference talk
- Concluding remarks

# Getting your paper accepted

- What are conference chairs and committees seeking?
  - Scope
    - Must fit within the scope of the session
    - “Hot” topics
  - Content
    - Many types of papers
      - Pedagogical – teach people something
      - Overview of a topic (invited oftentimes)
      - Cutting edge of research or development
      - Talks covering peer reviewed articles or patents and intellectual property

# Getting your paper accepted

- What are conference chairs and committees seeking?
  - Organization
    - Your abstract (and outline) should be succinct and relay the purpose of the talk
  - Interesting
    - Technical interest as well as engaging
  - Noteworthy authors known to the community
    - We all have to earn this distinction with our work in the public domain
  - Repeat talks are not a good thing and you can get a reputation for always talking about the same old topic!

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# Content

- What amount of detail is appropriate?
  - Enough to get a few points across
    - Don't make too many points or your big points will be "lost"
    - Too much detail is very bad
    - Too little detail is also bad
  - Examples should be used to make points concrete

# Content

- Know the audience

- Level of technical knowledge

- Non-technical
    - General technical
    - Optics/photonics knowledge
    - Knowledge of the general area in optics/photonics
    - Knowledge of your specific work and subfield

- Formality

- Humor
    - Expectation on the polish of the talk

# Content

- Achieving the goals of the talk
  - Make sure you identify and know the goals of your talk
    - You should have a few key points to make – be sure the content accomplishes this task
  - Part of the goal is always to promote the work, organization, and definitely YOU!!!

# Large scale structure

- Organized
- The flow and transitions need to be good
- Outline slide is “controversial”
  - Can be a waste of precious time
  - People do need to be oriented
  - Avoid the meaningless outline slide
    - Use of examples and motivation slides can help
  - Bottom line: use your discretion

# Large scale structure

- Talk can be structured like a paper or lab report
  - Introduction, hypothesis
  - Procedure, set-up, theory
  - Examples, data
  - Discussion, analysis
  - Concluding remarks
- There are other options too depending on the content and goal of the talk

# Individual slide structure

- At most, one concept per slide
- Make sure slides are not too busy
  - Avoid
    - Excessive number of bullets
    - Excessive number of equations
    - Excessive number of graphics
- Font sizes crucial

# Individual slide structure

- Color scheme needs to be reasonable
  - Be aware roughly 5% of males are colorblind (some females too)
  - You won't know the color gamut of the projector and room illumination
- Make title slide, if one is there, somewhat meaningful
- Limit words – use verbal communication to convey full meaning

# Equations

- Use caution using equations
  - Can bury the audience in unwarranted detail
  - What if my paper is theory?
    - Use examples and only put down key results
    - Can give some extra information such as the starting point and comment on how something is derived, but keep it at a high level

# Graphics

- Keep graphics uncluttered if possible
  - Too much data can obscure the key points
  - Break into multiple graphs if necessary
- Use reasonable colors
- Make sure fonts are large enough
- Ensure you have good resolution for a variety of viewing conditions
- Again, the key is to convey your points and support your arguments

# Fancy features in slides

- Only use these types of features if it helps convey your points
- Can be a really big distraction
- If you use such features, be aware the you must plan the flow of the talk well

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# The setting

- Good slide design can help with
  - Different illumination conditions
  - Far viewing distances
  - Wide viewing distances
  - Disco balls
- Prepare your slides for the most difficult viewing conditions you can imagine

# Connecting with the audience

- Don't pace
- Be enthusiastic and positive about your work
- Maintain good posture
- Use eye contact over the whole audience if possible
- Stay focused on your talk regardless of what is going on in the room
  - Practicing your talk really helps for all of these points

# Language and enunciation

- If there is a microphone, make sure to keep your mouth pointed in the same direction to avoid fluctuation in your volume
- Make sure to pronounce words as best you can (don't mumble)
- Use inflexion if you can
  - If you are intrinsically not a dynamic speaker (i.e. monotone), make sure your slides aid in keeping people's attention
- If the language of the talk is not your primary language, you will likely need to practice the talk more
  - Practice in front of a native speaker if you can!

# Laser pointers

- Can be very distracting, only use it when you are specifically pointing at something in your talk
- Only point at your talk, not the wall or (gasp) the audience
- Avoid jitter
  - Move it slowly as you point
- My experience has been that the green ones are too overpowering

# Insulation from facility disasters

- Good slide design
- Practice the talk
- Always be prepared for the worst with backups
  - Put a copy on a colleagues computer in addition to your own
  - Have one for download on a home computer if possible
  - Bring a hardcopy of the talk
  - Bring the talk on a memory stick
  - Burn a CD of the talk

# Length


- Varying accounts on average slide length
  - 1 minute per slide is a brisk pace
  - 3 minutes per slide is slow if there is good content control
- Make sure to practice your talk
  - In front of colleagues is always valuable...
- **NEVER** go over the time limit, it is extremely rude and disrespectful

# The dreaded...answering questions

- A facet of giving talks a lot of us don't fancy
- Tips to survive
  - Repeat the questions people ask
  - Take your time to answer and do your best
  - Learn to say you don't know
    - We have not considered that (yet)
    - Good idea, we will take this into consideration
  - Take it as a learning experience

# The Youngworth guide to obnoxious audience members

- The Hijacker (frequently poses non-questions)
- The Heckler
- The Insistent Questioner
- The Arrogant Know-It-All
- The Poor Question Stater
- The Long Question Giver
- The Question Giver that Requires a Dissertation to Answer
- The Stupid Questioner (out-of-scope)
- The Already-Answered Questioner



# The Youngworth guide to obnoxious audience members

- Always use tact and do not reciprocate bad behavior. Take the high road and you will always look good!

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# Follow-through on the talk

- Do what you say you will do when you are dealing with people at the conference, especially with regard to your talk
  - Take good notes on these things!
  - Examples:
    - Emailing papers
    - Answering more detailed questions you promise to answer

# Follow-through on the talk

- Bring some form of contact information to the conference, such as business cards
- Bring copies of your paper (softcopy and hardcopy)
- Answer people one on one
- Take constructive criticism gracefully – it can make your work better

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# Concluding remarks

- This has been no frills overview covering some basics on giving good conference talks
  - If some of these points seem obvious that is good
- SPIE offers a workshop run by experts that goes into more detail
  - SPIE WS667 “The Craft of Scientific Presentations: A Workshop on Technical Presentations” developed and also taught by Mr. Michael Alley
    - Text *The Craft of Scientific Presentations* is **free** to student members
  - You must register to attend!

# Concluding remarks

- Always keep the talk's goals in mind
- Maintain good work integrity
- Try to go to a similar conference session at least once before you give a talk
  - People with experience such as advisors can help
- Consider the entertainment value of your talk



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