American Institute of Aeronautics and Astronautics

Best Practices for Giving a Technical Presentation at an AIAA Forum

This manual was prepared by the AIAA Technical Activities Division to assist Technical Paper Authors in Preparing Technical Presentations for AIAA Forums and Cosponsored Events

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1 Introduction

The American Institute of Aeronautics and Astronautics (AIAA) is the world's premier society for aerospace professionals. AIAA forums and cosponsored events provide aerospace professionals with the opportunity to share research with colleagues and students through technical papers and presentations.

While the technical paper is the archived product that stands alone and serves as a reference, the technical presentation highlights the objectives, findings, and conclusions from the paper for the audience at the event. Good technical presentations will motivate the audience to read the paper!

This document provides guidelines and best practices for technical presentations at AIAA events.

2 What to Expect at an AIAA Technical Presentation Session

Each technical session will be managed by one or more Session Chair(s). The Session Chairs introduce the speakers, manage the time for each presentation, and deal with any disruptions during the presentation (this is a rare occurrence). Some Session Chairs will reach out to you in advance of the event to confirm your attendance and/or update your biography for introducing you to the audience.

The Speaker Prep Session is typically held in the morning on the day of your presentation and in the room where your session will be held – please attend this briefing! Your attendance at the Speaker Prep Session confirms your attendance at the event with the Session Chairs and allows the Session Chairs to communicate any special instructions.

During the Speaker Prep Session, you will be able to load your briefing materials (slides and any videos) onto an AIAA-provided laptop using a USB drive. If using the AIAA-provided laptop, please verify that your presentation and any videos work as expected. You will also be able to see the room where you will be presenting. Most rooms will have a podium for the laptop (and a glass of water, if needed) and offers a place to stand. The use of microphones will depend on the size of the room.

During your technical session, the Sessions Chairs will ensure each presentation is kept to its allotted time. However, you should plan ahead to keep your presentation to the allotted time, allowing time for Q&A. During your presentation, the audience will be respectful and allow you to go through your presentation uninterrupted. Be prepared for challenging questions from audience when your presentation concludes. This means the audience was engaged and is interested in your work!

Please note, the technical presentation and/or session formats are subject to change, so be sure to check the latest information on the forum or event website and/or ask AIAA staff.

3 Best Practices For Your Technical Presentation

3.1 Designing Your Presentation

1. Design your presentation to encourage the audience to read your paper. You do not need to touch on every detail included in the paper.
2. Identify three key points you want the audience to take away. Make sure those points are clear and repeated throughout your presentation.
3. Keep your audience in mind. Provide enough context and background. Tell them why you studied this problem. Tailor your presentation to the nature of your audience – are they technical and already versed in the subject, or generalists new to your subject?
4. Lay out your presentation to tell a logical story that walks the audience through the problem (the why), approach (the how), results, and conclusions.
5. Your slides support what you want to say. You are not there to serve your slides.
6. The audience will pay the most attention at the beginning and the end. Summarize main points at both the beginning and end.

3.2 Making Your Slides

1. Please see the AIAA slide template posted on the Technical Presenter Resources page for briefing guidelines and specifications. The AIAA-provided laptops will support Microsoft PowerPoint and PDF formats.
2. Use a slide template with a 16:9 aspect ratio.
3. Use at least 24-point font on your slides for those audience members in the back of the room.
4. For a 20-minute presentation, you should have 15 slides or fewer. A good general rule is 2 minutes of speaking time per technical slide.
5. Avoid complicated slides with too many pictures and words with no logical flow. If necessary, break complex topics into multiple slides or use animation.
6. Do not use bullet points as a script for your presentation. The bullet points should be used to emphasize key points.
7. Do not use full sentences for your presentation. The audience will read your slides instead of listening to your words.
8. Avoid using jargon and too many acronyms. Your audience will quickly get lost.
9. Avoid detailed equations and walking through theorems/proofs/lemmas. The audience will not be able to process the details during your talk! Use plain English to describe the outcomes and refer the interested reader to the paper for details.
10. Use figures and pictures to clarify and amplify key messages. More graphics, fewer words!
11. You may need to simplify the figures in your paper for the presentation. Too much detail may lose the audience. You also may need to increase the font size from your paper figures to your slide figures.
12. Keep videos short. Make sure to plan for the video duration when designing your slides. For example, a 5-minute video is equivalent to 4-5 slides. Please confirm your videos will play on the laptop and/or projector before your presentation time.

3.3 Giving an In-Person Presentation

1. When practicing your presentation, ask colleagues and friends to provide feedback. Consider recording your practice presentations to learn from.
2. Practice your presentation to keep your talk to the allotted time. Make sure to speak at a comfortable pace.
3. Become comfortable with your slides so that you can make eye contact with the audience. Do not just read the words on the slide! Use the laptop screen to monitor your slides rather than turning to look at the projector screen.
4. Use the laser pointer sparingly and to highlight key points. Do not move it around the slide as you talk. Consider using animation instead of the laser pointer to walk the audience through key points.

4 References

1. Guidance for AIAA Modeling and Simulation Technologies Conference Presentations, Version 1.4, January 2015.
2. TED-X Speaker Guide: https://storage.ted.com/tedx/manuals/IllustratedTEDxSpeakerGuide.pdf.
3. 20 World-Class Presentation Experts Share Their Top Tips: https://www.forbes.com/sites/markfidelman/2014/08/15/20-world-class-presentation-experts-share-their-top-tips/#2e7e6a3a5c40.