

Guide for Presenters: Summary
American Association of Variable Star Observers
Revised October 15, 2018

- Keep in mind that your presentation should *convey relevant information to the audience in a way that they will understand, remember, and be able to apply.*
- Before creating your presentation, consider and be able to state its purpose.
- Speak clearly and not too quickly, enunciate, and project your voice so it will reach the back of the room.
- One slide per minute is a good rule of thumb.
- Tables are particularly hard to read; try instead to think of a way to present the information using diagrams or graphs.
- For graphs, be sure to label axes in large, easily readable fonts and include units.
- Anticipate which terminology the audience may have trouble understanding. Consider listing acronyms and their meaning on the first slide, or defining each acronym in spoke words the first time it is used.

Guide for Presenters: Detailed Guidance
American Association of Variable Star Observers
Revised October 15, 2018

1. Keep in mind that your presentation should *convey relevant information to the audience in a way that they will understand, remember, and be able to apply. Remember that you may know more about this topic than the majority of your audience. It is therefore important to aim the level of your talk to the audience in attendance.*

2. Before creating your presentation, consider and be able to state its purpose.

3. Have an outline in mind for your talk, given your goals and the questions you are addressing. Here are some ideas:

3a. Introduction: Why should we care about this material? Why did you undertake this project? Why is it important? What questions are you trying to answer? Consider making a bold statement or claim that you will provide evidence for.

3b. Body: Present evidence for your claim, briefly summarize methods, and present data/analysis that answers your questions.

3c. Conclusions: Sum up significant results and conclusions. What are their implications? Were there any surprises? What are your next steps?

4. Speak clearly and not too quickly, enunciate, and project your voice to the back of the room.

5. Try to address the entire room, and not just one or two persons. Keep your chin up, change the direction that you are facing occasionally and make brief eye contact.

If PowerPoint presentation slides or videos are used:

6. Rely less on speaking to the slide or visual aid and engage more directly with the audience. Don't simply read the text displayed. Have the slide support the important point with a picture, graph, or a few bullets, and speak to the details.

7. Consider putting less on each slide. Make all text and figure labels clear, in the largest font that will fit. The minimum recommended font is 24 point. It is best to have only one graphic, photo, figure, or table per slide. A clear, uncluttered arrangement is more important than fancy visuals. Subtle color contrasts do not always project well; what looks good on your computer screen may not work in the hall. Dark font on a light background is generally easier to see. If you must use a background image, keep it very faint so as to not distract the viewer. Sans Serif fonts, such as Arial and Verdana, are easier to read.

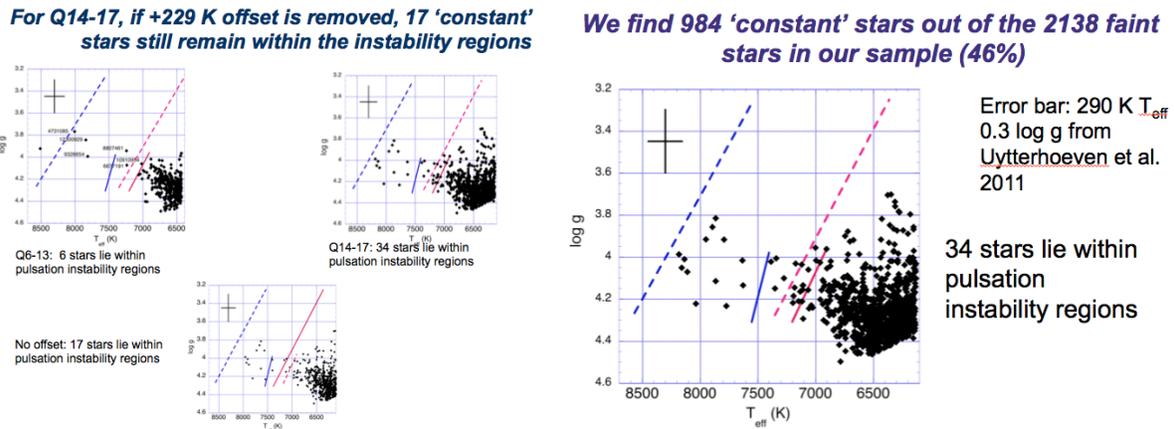


Fig. 1.7. Slide that should be separated into three slides (left); slide with title, explanations, and large enough figure (right).

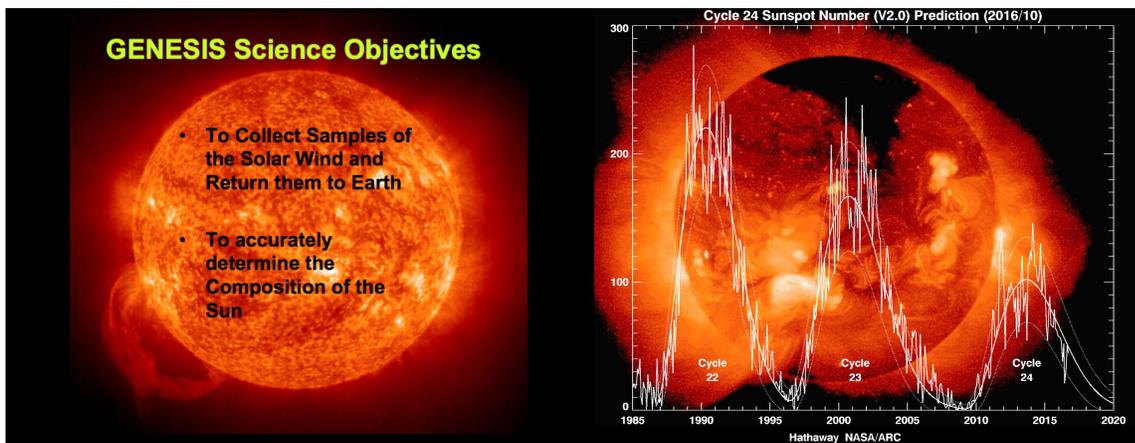


Fig. 2.7. Slides with distracting backgrounds that make it difficult to read words or see graphics.

8. One slide per minute is a good rule of thumb. Avoid using transition slides or fancy PowerPoint visual effects such as fade-outs between slides. They waste time and can be distracting. Be aware that embedded videos and other audiovisuals that run well on your computer may not on another, so avoid these unless you have already received permission to use your own laptop. Be aware that Internet access may be unreliable, so avoid using live links from the Internet unless absolutely necessary. Static screen captures are a much better option.

9. Make the point or conclusion of a slide the title of the slide: For example, instead of a title “Light curve of alpha Ori,” use a title that explains the point of the viewgraph, e.g., “alpha Ori light curve shows unexplained amplitude changes.”

10. Tables are particularly hard to read; try instead to think of a way to present the information using diagrams or graphs. Be aware that color coding may be difficult for some viewers, especially those with visual challenges. Where possible, use textures with your colors in pie charts to convey meaning.

Surface composition of the Sun by mass (Asplund et al. 2009)

Table 1 Element abundances in the present-day solar photosphere. Also given are the corresponding values for CI carbonaceous chondrites (Lodders, Palme & Gaul 2009). Indirect photochemical estimates have been used for the noble gases (Section 3.10).

Z	Element	Photosphere	Measures	Z	Element	Photosphere	Measures
1	H	12.00	8.22 ± 0.04	44	Ru	1.77 ± 0.09	1.76 ± 0.03
2	He	10.10 ± 0.11	1.29	45	Rh	0.90 ± 0.10	1.06 ± 0.09
3	Li	1.07 ± 0.10	3.26 ± 0.03	46	Pd	1.17 ± 0.13	1.63 ± 0.02
4	Be	1.36 ± 0.09	1.09 ± 0.03	47	Ag	0.94 ± 0.10	1.20 ± 0.02
5	B	2.76 ± 0.20	2.79 ± 0.04	48	Cd	0.88 ± 0.10	1.71 ± 0.03
6	C	8.43 ± 0.03	7.39 ± 0.04	49	In	0.80 ± 0.20	0.76 ± 0.03
7	N	7.81 ± 0.03	6.26 ± 0.06	50	Sn	2.06 ± 0.10	1.07 ± 0.06
8	O	8.69 ± 0.03	8.40 ± 0.04	51	Sb	1.01 ± 0.06	1.01 ± 0.06
9	F	4.56 ± 0.03	1.62 ± 0.04	52	Te	2.18 ± 0.03	2.18 ± 0.03
10	Ne	0.93 ± 0.10	1.12	53	I	1.13 ± 0.09	1.13 ± 0.09
11	Na	6.24 ± 0.04	6.27 ± 0.02	54	Xe	22.24 ± 0.00	1.93
12	Mg	7.66 ± 0.04	7.53 ± 0.03	55	Ce	1.88 ± 0.02	1.88 ± 0.02
13	Al	6.47 ± 0.03	6.43 ± 0.01	56	Ba	2.18 ± 0.09	2.18 ± 0.03
14	Si	7.52 ± 0.03	7.52 ± 0.03	57	La	1.10 ± 0.04	1.17 ± 0.02
15	P	4.41 ± 0.03	4.41 ± 0.04	58	Ce	1.18 ± 0.04	1.18 ± 0.02
16	S	7.12 ± 0.03	7.13 ± 0.02	59	Pr	0.72 ± 0.04	0.76 ± 0.03
17	Cl	5.56 ± 0.03	5.22 ± 0.06	60	Nd	1.62 ± 0.04	1.62 ± 0.02
18	Ar	0.80 ± 0.11	0.30	61	Sm	0.36 ± 0.04	0.34 ± 0.02
19	K	5.01 ± 0.09	1.09 ± 0.02	62	Eu	0.52 ± 0.04	0.51 ± 0.02
20	Ca	6.34 ± 0.04	6.29 ± 0.02	64	Gd	1.07 ± 0.04	1.03 ± 0.02
21	Sc	1.13 ± 0.04	1.03 ± 0.02	65	Tb	0.58 ± 0.10	0.52 ± 0.02
22	Ti	6.95 ± 0.03	6.95 ± 0.03	66	Dy	1.10 ± 0.04	1.13 ± 0.02
23	V	3.93 ± 0.08	3.96 ± 0.02	67	Ho	0.48 ± 0.11	0.47 ± 0.02
24	Cr	5.46 ± 0.04	5.44 ± 0.01	68	Er	0.92 ± 0.01	0.92 ± 0.02
25	Mn	5.43 ± 0.04	5.48 ± 0.01	69	Tm	0.10 ± 0.04	0.12 ± 0.01
26	Fe	7.50 ± 0.04	7.43 ± 0.01	70	Yb	0.84 ± 0.11	0.82 ± 0.02
27	Co	6.99 ± 0.02	1.67 ± 0.01	71	Lu	0.10 ± 0.04	0.09 ± 0.02
28	Ni	6.22 ± 0.04	6.20 ± 0.01	72	Hf	0.81 ± 0.04	0.71 ± 0.02
29	Cu	1.43 ± 0.04	6.22 ± 0.01	73	Ta	0.52 ± 0.04	0.52 ± 0.04
30	Zn	4.56 ± 0.03	4.43 ± 0.04	74	W	0.81 ± 0.11	0.67 ± 0.04
31	Ga	1.96 ± 0.09	1.98 ± 0.02	75	Re	0.16 ± 0.04	0.26 ± 0.04
32	Ge	1.65 ± 0.10	1.18 ± 0.04	76	Os	1.40 ± 0.04	1.13 ± 0.01
33	As	1.80	2.30 ± 0.04	77	Ir	1.18 ± 0.07	1.12 ± 0.02
34	Se	1.44	1.44 ± 0.01	78	Pt	1.62 ± 0.01	1.62 ± 0.01
35	Br	2.44 ± 0.06	2.9	Au	0.92 ± 0.10	0.80 ± 0.04	
36	Kr	0.23 ± 0.08	0.27	80	Hg	0.90 ± 0.20	0.77 ± 0.01
37	Rb	2.52 ± 0.10	2.34 ± 0.03	81	Tl	0.60 ± 0.20	0.77 ± 0.01
38	Sr	2.87 ± 0.07	2.88 ± 0.01	82	Pb	1.73 ± 0.10	2.04 ± 0.01
39	Y	2.21 ± 0.01	2.17 ± 0.04	83	Bi	0.44 ± 0.04	0.44 ± 0.04
40	Zr	2.48 ± 0.04	2.43 ± 0.04	90	Th	0.02 ± 0.10	0.06 ± 0.01
41	Nb	1.86 ± 0.04	1.81 ± 0.04	92	U	0.02 ± 0.10	0.02 ± 0.01
42	Mo	1.88 ± 0.04	1.94 ± 0.04				

Surface composition of the Sun by mass (Grevesse & Noels 1993 abundances)

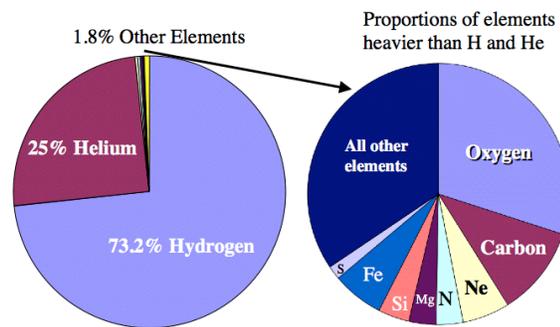
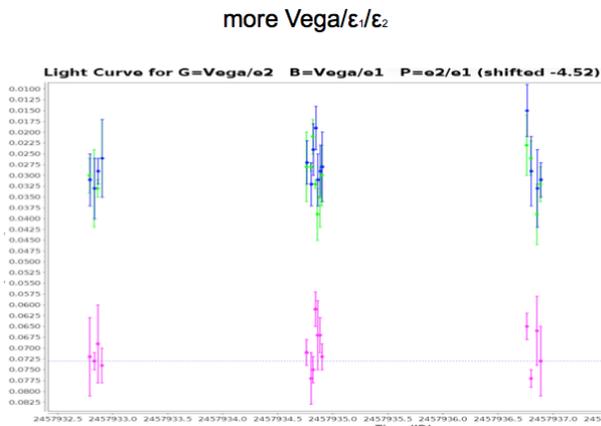


Fig. 1.10. Table that his hard to read (left) vs. pie diagram showing element distribution (right).

11. For graphs, be sure to label axes in large easily readable fonts and include units.



Kepler first observed F4 V star theta Cyg using a custom aperture June-Sept 2010

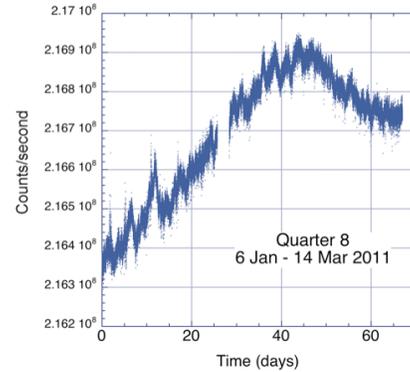


Fig. 1.11. Data for Vega with unlabeled axes, too-small numbers on axes, uninformative title, and unexplained symbols and terms (left); data for theta Cyg with larger font, title, and axes labeled.

12. If a slide includes material from a journal paper or web site or another source, include a citation or acknowledgement of the source on the viewgraph.

13. Anticipate which terminology the audience may have trouble understanding, keeping in mind that many of the audience members will not be professional scientists, and allow time to define terms. Consider listing acronyms and their meaning on the first slide.

14. Be sure to fit your talk within the time limit allotted, and leave the expected time for questions and discussion; for example, if your talk is scheduled for 20 minutes + 10 minutes for questions, aim for a talk of less than 20 minutes.

15. Follow the directions of the moderator/session chair. Be inclusive when deciding whose questions to take from the audience.

16. Practice your talk with a friendly audience at least a week beforehand to allow time to make changes based on your experience and your audience suggestions. Ask your audience to think of challenging questions, and practice answering them.

17. Microphones: Try out the microphone provided, ahead of time at a break, if possible. Experiment with placement, how far away from the microphone to speak, and audibility to participants at various places around the room. Just before starting your presentation, ask the audience to confirm that you can be heard. Do not wear jewelry or other objects that will bounce against the microphone or make noises that will be amplified. Wear clothing with a pocket or a belt that the microphone battery/power box pocket can be clipped to during your talk. If you are using a hand-held microphone, keep the microphone a constant distance from your mouth.

18. Laser pointers: Be judicious in use of a laser pointer. Do not wave the pointer around and especially do not point it at the audience while turned on. Use the pointer sparingly to draw attention to important things on your slides, and do not use it to highlight every word read from a slide.

19. Abstracts: Presenters are usually required to submit an abstract. The abstracts are published in the *JAAVSO* and indexed on astrophysical data system (ads.harvard.edu). In the abstract, summarize why the work is important, and the main conclusions, even if doing so seems to give away the punch line of your talk.

20. Templates and Example Slides: A sample PowerPoint template is provided at aavso.org/XXX. Example PowerPoint presentations from recent talks can be found at aavso.org/XXX. Recorded talks can be found at aavso.org/XXX.

21. Please consider submitting an article about the material in your talk to the *Journal of the AAVSO*. See <https://www.aavso.org/how-submit-article-jaavso> for author guidelines.

22. Consider having a poster board space for back-up, supplementary material that could be discussed with interested attendees during a break.

23. Consider making your presentation available as a pdf that could be distributed electronically. The web site to obtain your presentation could be advertised at the end of your talk, your E-mail address could be listed to request a copy of your presentation, or a sign-up sheet could be made available at the meeting registration desk or poster session for participants to request a copy by E-mail. [The AAVSO could also make a members-only web space for slides of meeting talks, or even videos of the talks].

Additional Resources:

Recommended talk by Emily Lakdawalla presented at Society of Astronomical Sciences meeting on giving understandable presentations:

Written version:

<http://www.planetary.org/blogs/emily-lakdawalla/2018/0206-speak-your-science.html>

Video of talk:

<https://arizona.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=2d254148-7a7b-4a25-b76f-a87e014e1772>