

General comments on talks and reports

Comments that emerged from the first progress presentations 1 given October 9, 2025:

- Pay attention to the grading criteria, as shared with you on October 7:
https://courses.physics.illinois.edu/phys523/fa2025/Slides/PHYS-523_ProgressPresentationAndReport_20251007.pdf
- Give your talk in a more formal way. Give it as if the audience were technical / project managers in a company who are not inside your team.

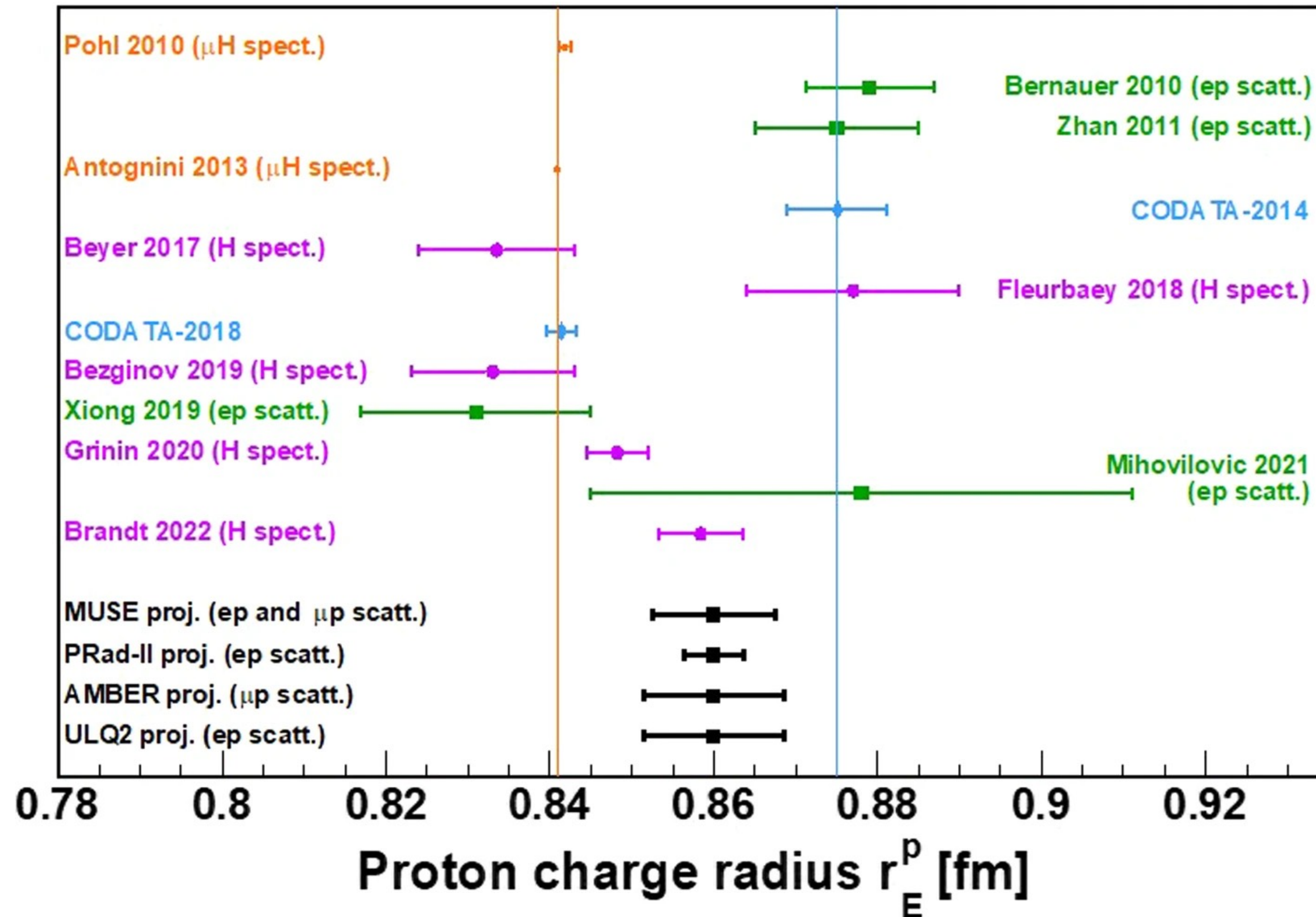
Content

- Take also into account the used and/or needed **resources**.

This starts with mentioning who is on your team and it includes personnel like technicians, TAs, research scientists (ask if you are not sure about a person's role).

- Include a **project introduction** - how is your project relevant in the broader context?
- All measurements are expected to be accompanied by a list of **systematic uncertainties** and their quantification through error propagation. It is not sufficient to only quote the central value of the measured quantity. This number alone has no validity, in particular when it is compared to the textbook value.

Measurement values without error bars would have no meaning



References - peer-reviewed publications

- The primary source for references should be peer-reviewed journal publications. Note that many arXiv articles are available in a revised (improved) journal version.
- On the arXiv page, look for the DOI (digital object identifier) number and the link <https://doi.org...>
Example: check out <https://arxiv.org/abs/1910.09111>
- If the article was published in a journal, the latter must be cited and not the arXiv.
- Example: <https://doi.org/10.1088/1361-6552/ab60db>
Woong Sung Lee 2020 Phys. Educ. 55 023002
With Woong Sung Lee = author, 2020 = year, Phys. Educ. = journal, 55 = volume, 023002 = first page number

References - tips

- Advanced: if / once you are building your LaTeX BibTex library, the citation can be downloaded from the journal page and imported into your BibTex file. Search for “export” on the DOI page.
- In presentations, it is better to include only a very short citation on the slide where the citation is needed, like “Lee 2020”. On the very last slide, a list of references in full format can be provided.
- Only in exceptional cases, wikipedia articles should be used as a reference. Quoted webpages need to be accompanied by a note like “*accessed on October 10, 2025*”.
- We recommend the following online portals to quote textbook quantities such as densities and heat capacities:
- <https://webbook.nist.gov/> and <https://www.wolframalpha.com/>

Style, figures and tables I

- Slides should not be overloaded with information and tiny images and plots. Per slide, transport one or two important aspects. Less is often more. If you talk for five minutes about the same slide, your audience tends to “wander off”. Instead, keep them engaged with well-portioned pieces of information.
- Stick to the same font size and style throughout your slide show.
- All plots (representations of data) need to be labeled on all axes with the quantity plotted and its unit. Plots and labels need to be sufficiently large so that they can be read well by the audience.

Style, figures and tables II

- Label photos: indicate the various components that are needed to inform your speech or report text.
- In reports, each figure and table needs to be called in the running text in order to make the reader aware of that element.
- Examples: “As shown in Fig. 3, the rod together with the sample block was dipped into the dewar.” - “Table 1 summarizes the experimental findings.”
- “Figure” and “Table” can be abbreviated “Fig.” respectively “Tab.”. Sentences must always start with full words - no abbreviations as the first element of a sentence.
- Include slide / page numbers.
- Include full date (including year).