

Tips for Writing a Successful APS General User Proposal

The evaluation of proposals depends on their scientific merit, technical soundness, and safety. This evaluation is carried out by both proposal review panel (PRP) members with support from APS staff. While PRP members are experts in x-ray methods, they may not be experts in all aspects of your scientific field.

In view of the above, we offer the following advice.

Contact Beamline Staff Prior to Proposal Submission

- Users should start their proposal writing by first learning about [Applying for Beam Time](#), [Proposal Types](#), and [Review Criteria for General User Proposals](#)
- Use the [Beamlines Directory](#) to find a beamline applicable to your proposed experiment(s)
- Connect with a beamline scientist a few weeks before the proposal deadline. Send an email and offer a call to discuss your experiment goals or share your questions and iterate over email. If possible, attach your draft proposal abstract, experimental plan, sample information, etc.
- Discuss specific beamline capabilities and limitations, potential results, and how to estimate beam time needs
- Ensure you are requesting the correct instruments for your proposed experiments or request suggestions for other experiments/tools that could aid in the proposed research

Successful Proposals Do the Following:

- Provide an experimental basis that supports the number of shifts requested, e.g., number of samples analyzed per visit, duration of each measurement, replicate measurement requirements, etc.
- Explain why the synchrotron radiation at APS is essential for your study and its advantages for addressing your specific research needs
- Supply background information on the importance of the proposed work and explain what, if the research is successful, it can enable for science and society
- Clearly state – in the abstract and the main proposal – how the measurements performed will answer your scientific questions in a way nearly anyone from a technical field could understand and see value in
- Expand upon prior APS proposals if applicable; demonstrate your research record and experience with productively using APS resources. If you are new to the APS and/or requested resource, state any engagement or planning discussions you have had with beamline scientists.

When Writing the Proposal

- Propose a single, targeted hypothesis
- Explain the concise goal of the experiment(s)
- Don't submit a proposal that proposes overly broad and exploratory projects without a clear, concise goal.
- Provide specific details on your plan and timeline. Don't use jargon – make your proposal accessible to all reviewers
- Include references to show what has been done and what is being done in your field

Helpful tips from APS [User Executive Committee](#) and [Proposal Review Panel](#) members

- Talk to the beamline staff/instrument scientists. They enjoy talking to users – no excuse not to reach out
- Don't wait until the last minute to submit your proposal
- Read your own proposal to make sure it's the best it can be, including spelling and grammar
- Read recent publications from the beamline you're interested in using. You can find publications from APS beamlines at <https://aps.anl.gov> > Publications > Search the database – use the beamline dropdown menu
- Indicate clearly what is to be measured and how. If some or all your samples have already been prepared, make this clear. Otherwise, it may be assumed that your samples are not yet ready.
- Summarize relevant preliminary data that supports your experimental plans (could be computational or evidence of having made something new that is ready for further characterization)
- Propose challenging, yet tractable, experiments that push the field(s)
- Some data require sophisticated analysis procedures to obtain the insights to answer the thesis; if this is the case, you should be specific in detailing this process or show precedent
- Be clear in the experiment description what equipment you plan to bring, and what you expect the APS to provide (if relevant). This can be informed from discussions with beamline staff and/or APS webpages.