**STS Project Preliminary Instrument Proposal Template**

The following are the guidelines for preparing and submitting a STS Project Preliminary Instrument Proposal.

* Preliminary proposals should not exceed **10** pages in length.
* Page totals indicated in parentheses are to be taken as guides and not requirements for section length.
* Proposals should address the following evaluation criteria:
  + Scientific importance and impact
    - Will the proposed instrument advance the frontiers of knowledge?
    - What are the broader society impacts of the proposed science case?
    - Does the science case identify grand challenges from national studies and reports?
    - Does the science case include a sufficiently wide application area?
    - What is the potential for high-impact publications?
  + Strength of the relevant user community
    - What is the predicted demand?
    - What research communities will use this instrument? Does this instrument have the potential to expand the neutron user community?
    - Will inclusion of this instrument maintain a balanced science portfolio across the ORNL neutron sources?
  + Uniqueness of STS source capabilities (cold neutrons, broad bandwidth, high brightness)
    - Does this instrument take maximal benefit of STS unique source capabilities?
    - Would the capabilities of this instrument be better enabled at another of the ORNL neutron sources?
    - Does this instrument complement the capabilities of existing instruments at ORNL?
  + Anticipated quality of the proposed instrument (world-leading, competitive, other)

***Remove all instructional text (leaving the headings) before generating your .pdf file. A 10-page limit (including graphics) will be enforced. Use font no smaller than 11 point. Address each of the following sections. The cover page is not included in the 10-page limit.***

**Cover Page (not included in page count)**

The cover page should include the title, team spokesperson name, affiliation and contact information, team member names, proposal role and affiliation, and an abstract which is 150 words or less.

**Science Case (4-5 pages)**

The science case should include a table of high-level requirements such as neutron beam or sample size, wavelength range, resolution, flux, and need for capabilities such as polarized neutrons and polarization analysis.

**Instrument Description (2-3 pages)**

The instrument description should discuss how the initial concept addresses the capability requirements.

**Anticipated User Community (1 page)**

The description of the anticipated user community and its use of this instrument with respect to existing instrument capabilities at other ORNL neutron sources.

**Unique STS Source Characteristics (1 page)**

The proposal should discuss how the instrument uses the unique STS source characteristics (cold neutrons, broad bandwidth, high peak brightness). Section 2 of the *First Experiments: New Science Opportunities at the Spallation Neutron Source Second Target Station* report provides information on the STS’s unique characteristics.

**References and Team Members Curriculum Vitaes (CVs)** **(not included in page count)**

The proposal should include references and the team members CVs. While brief NSF-style biographical sketches are encouraged, they are not required.