BaPSF White Paper Proposal Template

Users are free to submit whiter paper proposals that do not conform to the outline of the template, below. However, it is strongly encouraged that they include the substance of the outlined topics. The length of the white paper should not exceed five U.S. letter-sized pages (including figures and references) with a minimum of 11 point main font size.

1. Proposal Title

2. List of proposers and associated institutions/companies.

3. Abstract

Include a very brief (<200 words) summary of your proposal's motivation and anticipated goals. If your white paper is approved, this abstract will be posted on the facility website.

4. Background & Scientific Rationale

Include information sufficient for someone with a background in plasma science or engineering, but not necessarily an expert in your subfield, to understand your proposal.
Some questions to consider: How novel is this project? Why does the experiment need to be done on the Large Plasma Device? What specific area of plasma physics (solar, magnetospheric, fusion, etc.) will this work impact? What fundamental question or problem will it address?

White paper proposals will be reviewed based on the Intellectual Merit and Broader Impacts of the proposal. The Intellectual Merit will be judged based on: (1) Importance of the scientific questions addressed, (2) Potential impact of the experiment, and (3) Clarity and reasonableness of the experimental approach. Broader impacts will be judged based on the involvement and training of junior scientists (including students & postdocs), impact on diversity, and contributions to the broader BaPSF User Community (e.g. will the project bring new techniques or hardware that could be utilized by others?) Proposers should ensure that the goal of the experiment is clear in the proposal and that resources requested (run time, measurements to be made, etc) are reasonable.

Applicants who have previously been allocated BaPSF runtime and are seeking new runtime to continue the same project should provide a status report on the results of prior runtime (including any presentations or publications that have resulted from the previous runtime).

5.1 Experimental Setup and Diagnostics

Details on machine and plasma parameters, available diagnostics, digitizers, and in-house equipment can be found on the facility website (http://www.plasma.physics.ucla.edu/bapsf)

What are the required range of plasma parameters (magnetic field, density, ion species, electron temperature, etc.?)

What diagnostics are needed (magnetic induction probes, Langmuir probes, emissive probes, microwave interferometers, etc.?) Include the number of each required.
Is other equipment needed (e.g., RF Amplifiers, antennas, 20x20cm LaB6 cathode, etc.?)

Is there any new equipment to be purchased or fabricated by the proposers? Do the proposers have the funding to purchase and/or the technical skills required to build the necessary hardware?

5.2 Experimental runplan

Describe how the resources in section 5.1 will be employed to answer the proposed scientific question(s).

How many weeks of runtime in the appropriate calendar year are required to carry out the proposed plan?

6. Personnel

Describe the roles of each proposer and what each will do to execute the goals of the project.

7. References