Charge to the Technical Review Panel

Super BigBite Project Conceptual Design

The SuperBigbite project will provide a set of apparatus for electron-scattering experiments in an open geometry at high luminosity with a large acceptance. A large component of the detectors will use GEM technology. Three experiments, that will extend our knowledge of various nucleon elastic form factors to double or even triple the existing Q^2-range, have been approved by the JLab PAC. The project is described in two documents: an updated Conceptual Design Report and a funding proposal to DOE. The completion of the project is defined as the moment when the assembly and the testing of the components for the first SuperBigbite experiment have been successfully accomplished.

Charge to the Review committee:

1. Is the conceptual design for the SBS sound and adequate to achieve the physics goals presented in the CDR? You should include all aspects of the design in your evaluation (magnet, detectors, trigger electronics, background simulations, etc.). Please comment on other experiments (possibly presented at the review) that could benefit from the implementation of the SuperBigbite project.

2. Have the design parameters been optimized for maximum physics impact?

3. Have the technical performance requirements been appropriately and sufficiently defined for this stage of the project?

4. Are there any open technical issues? Have the comments raised by the first Technical Review been addressed adequately?

5. Are the resources requested sufficient for the completion of the project? Please comment on the level of contingency included in the cost estimate. Does the collaboration have the required experience and expertise?