

Charge for Review of the Stony Brook ATLAS LAr ATCA Carrier

The US ATLAS Phase-I upgrade project includes design and production of an ATCA carrier for the LAr trigger digital back end system. The ATCA carrier will hold four AMC daughter cards for performing energy and time reconstruction. The CD-2/3 US ATLAS Upgrade DOE review committee requested an informal review of the Stony Brook (SBU) ATCA carrier prior to building the first test boards. The US ATLAS upgrade project and the SBU group agree with utility of having such a review. This review committee is requested to address the following items:

1. evaluate the carrier design for adherence to the ATCA requirements and required ATLAS functionality (allowing for the presence of features planned for testing only),
2. evaluate whether or not the schematic implements a correct version of the design, and
3. evaluate the layout plans to see if they are sensible.

If needed, a follow up review will be carried out to evaluate the layout itself.

The SBU group will provide a document describing the carrier design, noting any features included for testing purposes which might be removed from later versions, and provide schematics for the carrier and the associated rear transition module. The design document will include a description of the plans for board layout.

We ask the reviewers to make the evaluation over a two week period, starting when they receive the documentation, Dec. 1, 2014. During the two weeks, they are encouraged to send questions by email to the SBU group (Hobbs/Schamberger), and the corresponding US ATLAS LAr Level 2 (Brooijmans) and Level 3 (Majewski) managers. The SBU group will reply by email as soon as possible. At the end of the two week period, a phone conference will be held at which any outstanding questions or issues will be discussed. The committee is asked to provide a list of any issues which remain at the end of this phone conference, but no formal report is expected.