sPHENIX Software & Computing review September 5-6, 2019 Charge to the Review Committee

The sPHENIX detector, currently under development, is designed to facilitate large acceptance, ultra-high rate measurements of fully reconstructed jets and high resolution spectroscopy of Upsilon states at the Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory (BNL). The experiment is aimed at addressing scientific questions prioritized in the 2015 NSAC Long Range Plan and generally enhancing the physics reach afforded by the RHIC complex prior to the possible construction of an Electron Ion Collider (EIC).

The plans for DAQ software, data storage and other computing aspects are at present at an early stage. The committee is charged to review the software and computing aspects of the project and provide advice and guidance on future planning:

- 1. Are the resources required to transmit and store the data adequately understood?
- 2. Are the resources required to process the data to a form suitable for physics analyses adequately understood?
- 3. Is the plan for developing software processes and framework adequately understood?

A report should be submitted to my office by close of business on Monday Sept. 16, 2019.

I very much appreciate your willingness to lend your time and expertise in this important process and look forward to receiving your assessment.

Janes C. Dunlop

James Dunlop Associate Chair for Nuclear Physics, Physics Department Brookhaven National Laboratory