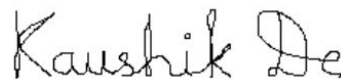# Review of the U.S. ATLAS Tier-1 Center

The U.S. ATLAS Tier-1 Center at BNL is the largest ATLAS computing facility outside CERN, providing approximately 23% of the Tier-1 computing resources for ATLAS. The review of the U.S. ATLAS Tier-1 center is critical to plan and successfully deliver on U.S. commitments for Run 3 and beyond in a cost-effective manner. It is imperative to fully exploit the recent advances in high-performance computing, distributed storage, and data management in order to successfully meet the impending large data rates expected in Run 3 and the subsequent significant scaling up in the HL-LHC era. Together with the proposed reorganization and move to the new computing data center at BNL, it is an appropriate time to conduct a review of the U.S. ATLAS Tier-1 center that will provide the input needed to plan for FY22 and beyond.

U.S. ATLAS management has requested the review of the U.S. ATLAS Tier-1 center to be conducted on March 29-30, 2021 (1.5 days). As part of the assessment, the committee is requested to address the following items:

1. Is the US ATLAS Tier-1 meeting the US ATLAS commitment and WLCG Tier-1 quality-of-service requirements competitively and cost-effectively?
2. Is the planning in place to deliver in a timely manner the required infrastructure (space, power, cooling, and network infrastructure) and services for Run 3 and beyond by effectively leveraging the SDCC infrastructure?
3. Are the migration plans to the new SDCC data center budgeted and reasonable with appropriate planning for mitigating risks?
4. Are the software and services at the Tier-1 appropriate and coherently planned with the US ATLAS Tier 2s, shared Tier 3s, and international ATLAS?
5. Is the staffing at the US ATLAS Tier-1 appropriate and adequate to efficiently operate the Tier-1 center at the expected level of service? Does the staff effectively contribute to ATLAS Distributed Computing (ADC)?
6. Is the proposed organization and management of the T1 center optimized to serve the needs of the U.S. ATLAS community with clearly defined interfaces to BNL Physics, U.S. ATLAS, and international ATLAS?
7. Is the plan for the evolution of the U.S. ATLAS Tier-1 center to meet the needs of the HL-LHC adequate for this stage of the program and informed by forthcoming innovations and technological developments?
8. Has the U.S. ATLAS Tier-1 center satisfactorily addressed the comments and recommendations from other recent reviews, including the most recent DOE/NSF review of the U.S. ATLAS Operations Program?

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