PAC Charge July 2019

The laboratory continues to align its program with the recommendations in the Particle Physics Project Prioritization Panel (P5) report: "Building for Discovery: Strategic Plan for U.S. Particle Physics in the Global Context." In this meeting the PAC is asked to comment on current issues that are important to the success of the ongoing program and for planning for the future. These include:

- 1. Report on Fermilab Plans and Roles in the Community Strategic Planning: We ask the committee to review Fermilab's role and contributions to the European Strategy Planning and to the U.S. Strategy Planning.
- 2. **Summary of the All Scientists Retreat**: We ask the committee to review the process and outcome of the 'All Scientists Retreat' and to assess whether progress towards the integration in the Laboratory's Strategic Planning is being made.
- 3. **Report on the QIS program**: We ask the committee to review the progress made towards the implementation of the vision presented at the January 2019 PAC meeting.
- 4. **Vision and Strategy for Computing**: We ask the committee to review the vision and strategy of the Scientific Computing program at Fermilab, including plans for migrating HEP computing to HP architecture. The committee is asked to assess the role of Fermilab in S&C R&D and experiments' operations in both the U.S. and the international context. The committee will review the newly introduced committee structure and assess its effectiveness.
- 5. **Report on the MicroBooNE Experiment**: We ask the committee to review the short-term analysis plans for the collaboration over the next year, as well as its plans beyond this time scale, particularly in regard to the low energy excess analyses.
- 6. **Report on the SBN Program**: We ask the review committee to assess the progress made towards establishing the SBN collaborative program and the development of the physics program.
- 7. **Report on the EMPHATIC Experiment**: We ask the review committee to consider the scientific merit and appropriateness of the new initiative.
- 8. **Report on the g-2 Experiment**: The committee is asked to review the results from the analysis of the data collected so far and whether the experiment is on track to achieve the expected sensitivity.
- 9. **Report on the CMS Experiment**: The committee is asked to review the status of the Physics Program, Operations, and Phase 2 Upgrade.

Contributions for information only:

- 10. Report on the CMB-S4 and SuperCDMS Experiment and on the Cosmic Physics Center
- 11. Report from the ILC Committee

- 12. Strategy and Vision of detector R&D at the laboratory
- 13. Report from the LBNC
- 14. Report on the NOvA Experiment
- 15. Report on the Minerva Experiment (offline)
- 16. Report on the SRF-DM Experiment (offline)
- 17. Report on the MAGIS-100 Experiment (offline)