

## PAC Charge July 2020 - May 6th, 2020

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” and plans its contributions to the upcoming Snowmass process. 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. Status of Scientific Computing at the laboratory Charge:** We ask the committee to review the status of Software and Computing at the laboratory and the status of the recommendations made at the January 2020 meeting.
- 2. Status of the QIS program at the laboratory Charge:** We ask the committee to review the status of the QIS program at the laboratory (including MAGIS) and the status of the recommendations made at the January 2020 meeting.
- 3. Status of the Cosmic program at the laboratory Charge:** We ask the committee to review the status and future perspectives of the Cosmic program at the lab, including expected contributions to LDMX and CMB-S4, and the status of the recommendations made at the January 2020 meeting.
- 4. Status of the Detector R&D at the laboratory Charge:** We ask the committee to review the status of the detector R&D program at the laboratory, the long-term strategic plan, and the role of Fermilab within the community.
- 5. Status of the CMS Experiment Charge:** We ask the committee to review the status of the CMS experiment including research, operations, and upgrades with focus on the Fermilab contributions and the management of the national programs.
- 6. Status of AUP Charge:** We ask the committee to review the status of the AUP project including the potential impact of the Covid19 pandemic.
- 7. Status of the g-2 experiment Charge:** We ask the committee to review the status of g-2 experiment and of the recommendations made at the July 2019 meeting.
- 8. Status of the MicroBoone experiment Charge:** We ask the committee to review the status of the MicroBoone experiment and the status of the recommendations made at the July 2019 meeting.
- 9. Status of the NOvA experiment Charge:** We ask the committee to review the status of the NOvA experiment.

**10. Report on the ICARUS Experiment** Charge: We ask the committee to review the status of the recommendations made at the January 2020 meeting and of the preparatory work towards the SBN operations.

**11. Status of the SBND** Charge: We ask the committee to review the status of the SBND.

**12. Status for the workshop "Physics Opportunities at Fermilab's Booster Replacement"** Charge: We ask the committee to review the scope and impact of the physics program being developed for the Booster Replacement.

**13. Overview of the Snowmass LOIs planned by Fermilab Scientists and Engineers** Charge: We ask the committee to review the scope of the LOIs proposed by Fermilab Scientists and Engineers.

We ask the committee to also review:

- 1) The status of ProtoDune and the status of the recommendations made at the January 2020 meeting
  - 2) The status of the ILC
  - 3) The LBNC report
  - 4) The outcome of the European Particle Physics Strategy Update (if applicable).
- Materials will be provided one week prior to the beginning of the meeting.