

Fermilab Physics Advisory Committee Charge: Fall 2026

Status and Plans for Fermilab's Accelerator Complex and IOTA/FAST - Alexander Valishev

Charge: We ask the PAC to review the progress of the Fermilab accelerator complex toward delivering NuMI and BNB beams to the experiments in FY27 and FY28, as well as activities in preparation for the Long Shutdown. We also ask the PAC to review the status of Fermilab's IOTA/FAST facility and its alignment with the laboratory's scientific program.

Report from Mu2e – Bob Bernstein, Chris Polly

Charge: We ask the PAC to review the updated status of the Mu2e experiment, including any updates on the delivery and commissioning of the detector solenoid, as well as preparations for the commissioning run ahead of the Long Shutdown.

Report from DPC - Brigitte Vachon

Charge: For information only

DUNE Accelerator Readiness Plan - Bob Zwaska

Charge: We ask the PAC to comment on the status and plans of the DUNE Accelerator Readiness Coordination effort.

Status and plans of Detector R&D – Angela Fava

Charge: We ask the PAC to review the current status of Fermilab's detector R&D program and the developing plans for future activities, in alignment with the laboratory's present and long-term scientific priorities.

CMS Report - Bo Jayatilaka

Charge: We ask the PAC to review the status and plans for Fermilab's contributions to the CMS Phase-2 Upgrade Project, including installation and commissioning activities during the LHC Long Shutdown. We also ask the PAC to review Fermilab's contributions to CMS computing and AI/ML and to assess how these activities enhance the experiment's physics capabilities.

Dune and NPC – David Newbold, Sowjanya Gollappini

Charge: We ask the PAC to comment on DUNE's vision for how the NPC can best support the experiment during its construction and operational phases in order to maximize DUNE's scientific output.

Status and Plans for AI/ML Efforts – Matt Touns

Charge: We ask the PAC to review updates on the status of the laboratory's AI/ML program (including recent news from the Genesis Mission), as well as progress in addressing recommendations from previous reviews:

- The laboratory should complete a strategic vision for its AI/ML strengths and unique capabilities. This vision should leverage both funded projects and promising unfunded Genesis Mission projects to position the laboratory for future funding opportunities.
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Status and plans of Accelerator Technology R&D - Sam Posen

Charge: We ask the PAC to review the current status of Fermilab's Accelerator Technology R&D program and the developing plans for future activities, in alignment with the laboratory's present and long-term scientific priorities.