

The 16th sPHENIX collaboration meeting

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The 16th collaboration meeting for sPHENIX experiment was held in May 28–31, 2025 at Brookhaven National Laboratory (BNL), Upton New York, U.S.A. There were 117 registered participants, including remote contributors, out of approximately 300 sPHENIX collaborators. This meeting was held a few weeks after the beginning of the first transversely polarized proton–proton collision at the sPHENIX experiment.¹⁾ Because the meeting was held during the commissioning period, one of the major focuses of the meeting was the quick feedback of the commissioning status. There have been nearly 20 years of history of beam-polarized proton collisions at RHIC; experimental setups to monitor the polarization locally at the sPHENIX site and the luminosity on a bunch-by-bunch basis have been revised from the PHENIX era to the sPHENIX era.²⁾ The commissioning of these new systems went well.

Besides the ongoing commissioning, various updates regarding the data analyses of Run23 were also reported. Furthermore, substantial time slots were assigned to discuss the approval of plots for the preliminary results from both Run23 and Run24. Plots approved by the session are allowed to be presented in public conferences and meetings as the showcase of the sPHENIX experiment to the rest of the world.

There were a total of 22 talks in the meeting. Itaru Nakagawa from RIKEN, as the spin coordinator of Run24, reported the commissioning status of polarized proton program. Genki Nukazuka from RIKEN also reported the commissioning status of the INTT silicon strip detector.^{3,4)}

In addition to these presentations, there were computing tutorial sessions for relatively new collaborators. Taking advantage of many experts gathering, the collaboration meeting had dedicated sessions for developing the tracking software to reconstruct charged particle trajectories using the sPHENIX tracking system,⁵⁾ which consisted of MVTX, INTT, TPC, and TPOT⁶⁾ detectors. The tracking sessions were held every afternoon for three to four hours to accelerate the development and configurations of the software infrastructures, including calibrations, alignments, and hit selection criteria for each of the tracking detectors.

A group photograph of the attendees of the 16th sPHENIX collaboration meeting is shown in Fig. 1. The photograph was taken in front of the physics building (building # 510) in BNL.

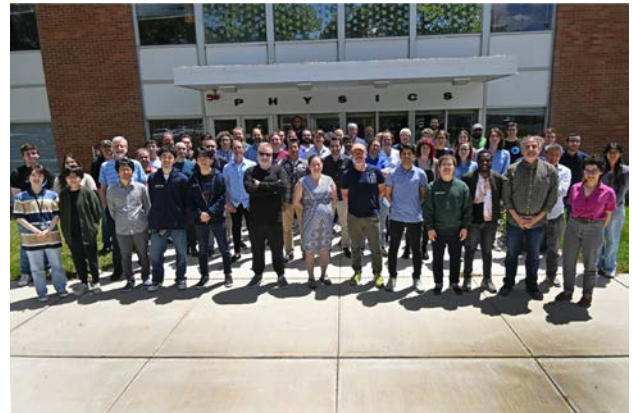


Fig. 1. The group photograph of the attendees for the 16th sPHENIX collaboration meeting in front of the main door of the physics building at BNL.

References

- 1) I. Nakagawa, in this report.
- 2) J. Hwang, in this report.
- 3) G. Nukazuka *et al.*, in this report.
- 4) Y. Akiba *et al.*, arXiv:2503.09105 (submitted to NIM-A).
- 5) An Upgrade Concept from the PHENIX Collaboration, arXiv:1207.6378v2 (2012).
- 6) S. Aune *et al.*, Nucl. Instrum. Methods Phys. Res. A **1066**, 169615 (2024).

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