Contribution ID: 20 Type: not specified

Status of the installation and commissioning of the APS-Upgrade Storage Ring Vacuum System

Wednesday, 17 April 2024 11:40 (25 minutes)

The APS-Upgrade (APS-U) project's new storage ring vacuum system has been assembled and installed between 2022 and early 2024. Much of the vacuum system was pre-assembled during a 'magnet & vacuum module assembly phase between 2022 and mid-2023 where 200 magnet modules (5 modules per each of 40 sectors) were assembled comprising about 90% of the storage ring vacuum system components. The magnet modules were brought into tunnel starting in the summer of 2023. Remaining vacuum interconnections were made between the fall of 2023 and early 2024 including beam position monitors (BPMs) connecting modules to each other and to straight section vacuum chambers, photon extraction lines connecting the storage ring to front ends, and Zone F straight section component installation. This presentation will share the status of the work performed, the challenges and solutions found along the way, and the status of beam commissioning as of April 2024.

Summary

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Session Classification: Session 4