

Contribution ID: 622 Contribution code: TUPR06

Type: Poster Presentation

Preliminary design of the normal conducting RF cavities for EIC hadron storage ring

Tuesday, 21 May 2024 16:00 (2 hours)

The RF systems of EIC hadron storage ring (HSR) consist of 4 normal conducting RF (NCRF) cavities and 1 superconducting RF (SRF) cavity, including 24.6 MHz, 49.2 MHz, and 98.4 MHz NCRF Quarter Wave Resonators (QWRs), 197 MHz normal conducting reentrant cavity and 591 MHz SRF cavity. 24.6 MHz is used to accelerate and capture the beam, 49.2 MHz and 98.4 MHz are mainly used for bunch splitting, and 197 MHz are used as storage cavities. In this paper, preliminary design of these NCRF cavities will be presented.

Footnotes

Funding Agency

Work supported by Brookhaven Science Associates, LLC under Contract No. DE-SC0012704 with the U.S. Department of Energy.

Paper preparation format

Region represented

North America

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Session Classification: Tuesday Poster Session

Track Classification: MC7: Accelerator Technology and Sustainability: MC7.T06 Room Temperature

RF