



EIC crabbing cavity RF systems

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The Electron-Ion Collider (EIC) being implemented at Brookhaven National Laboratory (BNL) in partnership with Thomas Jefferson National Accelerator Facility (JLab) is designed to collide electrons and protons/Heavy Ions with energies of 5-18 GeV, 2.5 A in the Electron Storage Ring (ESR) and the 41 to 275 GeV/u, 1 A in the Hadron Storage Ring (HSR). The interaction region with a crossing angle of 25 mrad relies on several Crabbing Cavity RF Systems operating at 197 MHz and 394 MHz. All the crabbing systems are designed with superconducting rf-dipole type cavities where the HSR will include both 197 MHz and 394 MHz crabbing cavities, whereas ESR will include only 394 MHz crabbing cavities. In this presentation, we will review the complexities and challenges of the EIC crabbing systems.

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Yes

Footnotes

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