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Design Status of the Electron-Ion Collider Beam Instrumentation

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The Electron Ion Collider (EIC) is being built at Brookhaven National Laboratory (BNL). The early preliminary design phase efforts are underway. In addition to upgrading the existing RHIC instrumentation for the EIC hadron storage ring, new electron accelerator subsystems will include a 750 MeV Linac, accumulator ring, rapid-cycling synchrotron, electron storage ring, and a hadron cooling facility. The scope of the instrumentation includes devices to measure beam position, loss, current, charge, tune, transverse and longitudinal profiles, emittance, and crabbing angles. A description of the planned instruments and the present design status will be presented.

Footnotes

Funding Agency

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