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Brookhaven National Lab magnet capabilities and projects

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From the time of the Brookhaven Summer Study in the summer of 1968 to the present day, Brookhaven National Laboratory's (BNL's) Magnet Division has developed advanced technology in support of science and US industry. Magnet Division is a world class magnet development facility which can provide full solutions from modeling, design, robust magnet engineering, and state of the art magnet prototyping and testing. Currently Magnet Division plays a significant role in the Electron Ion Collider (EIC) magnet design and the Accelerator Upgrade project. BNL's Magnet Division is utilizing its unique direct wind technology for the construction of many of the EIC interaction region (IR) magnets, a magnet design and fabrication technique that allows the production of highly precise field quality magnets and that enables the highly compact IR needed by the EIC. These unique capabilities may also play a critical role in the development of the IR for the future FCC-ee and other future colliders. This talk will give an overview of the many capabilities and magnet projects currently underway at BNL, and the potential synergies with the FCC.

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