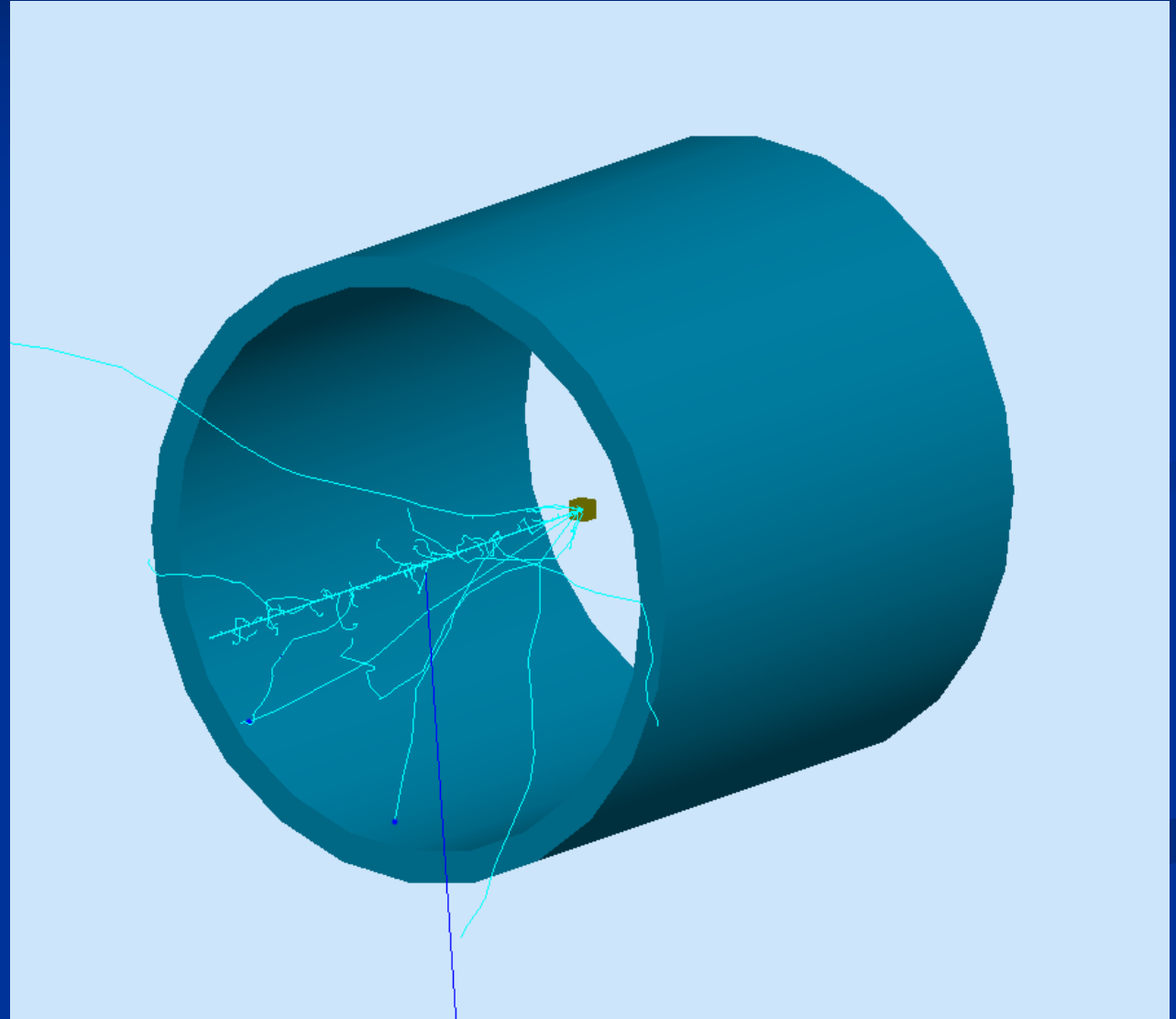


Detector of Internally Reflected Cherenkov Light (DIRC)

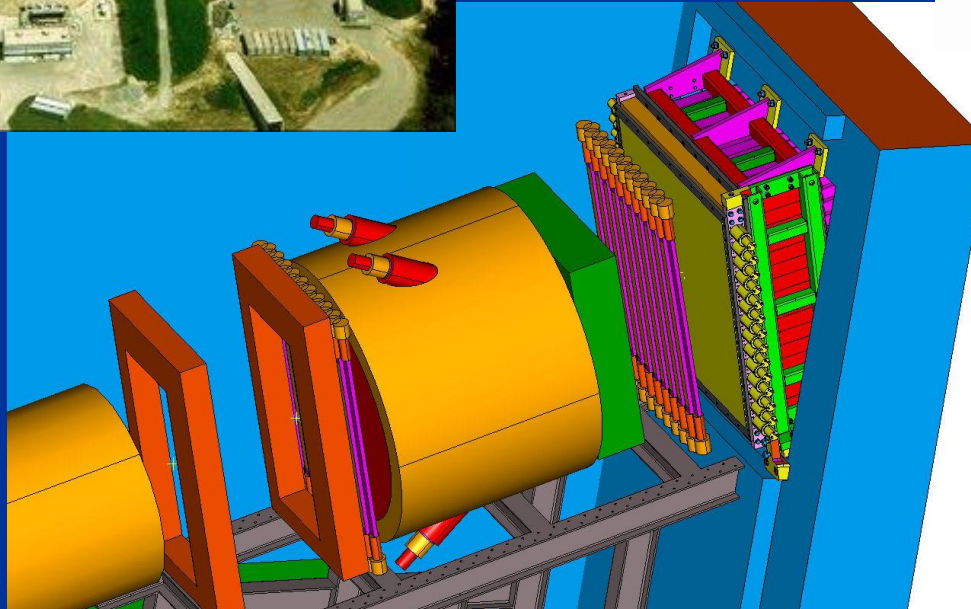
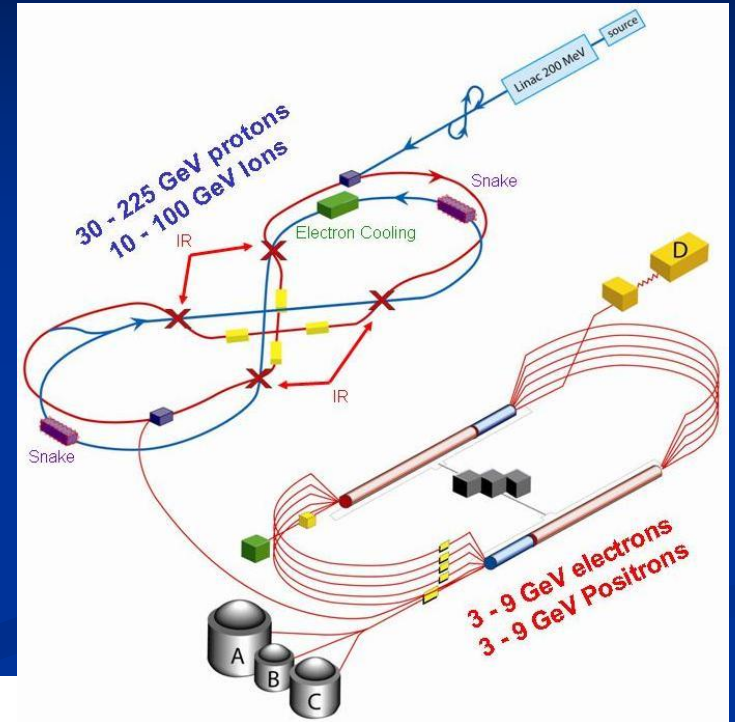
- A DIRC has been proposed for the planned Electron-Ion Collider (EIC) facility.
- It allows a geometrically compact and efficient way for particle ID at the new facility.
- Conceptual Design is underway
- Simulations conducted in GEMC.

Initial Geometry and Efficiency Studies

- Initial Geometry Constructed in GEMC
- Electron – Hydrogen Collision tests can be used to investigate efficiency of simulation and particle distribution around the detector
- Studies are ongoing



Outlook



Conclusion

■ Aerogel Detector

- Several tools developed for component characterization of such detectors.
- Results appear positive for detector performance!
- Construction Completed
- Project nearing completion!

■ DIRC project

- GEMC Simulations ongoing
- Conceptual Design underway for next generation of high energy physics facilities.

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Photo Credit: Daniel Rice