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Polarization preservation strategy in the hadron storage ring of EIC

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High polarization is required for both electron and ion beams for the Electron Ion Collider (EIC). To preserve polarization in the hadron storage ring (HSR), several full Siberian snakes will be employed. To reduce the depolarizing resonance strength and high luminosity, ion beams will be cooled at HSR injection. Extensive simulations have been done to check polarization levels when beam passing strong depolarizing resonances. This paper summarizes the recent simulation results and the general strategy of polarization preservation in the HSR.

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