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Crossing transition in the EIC HSR with a resonance island jump scheme

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The Resonance Island Jump (RIJ) scheme for transition crossing in the Hadron Storage Ring of the Electron-Ion Collider is radically new, and untested. Beam experiments in RHIC will be necessary if it becomes necessary to consider the RIJ scheme as a serious alternative to upgrading the first order linear jump scheme currently implemented in RHIC. This paper outlines the theoretical foundations of the RIJ scheme, and considers how a beam experiment in RHIC could be performed.

Footnotes

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