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Resonance island formation due to adiabatic tune change in RHIC

Tuesday 3 June 2025 16:00 (2 hours)

A stored proton beam may become unstable when the horizontal tune slowly approaches a quarter integer resonance.This paper discusses this phenomenon in the context of an Accelerator Physics Experiment that was conducted in the Relativistic Heavy Ion Collider, in which the horizontal tune was ramped through a fractional tune of 0.75 in the presence of strong octupolar fields.

Footnotes

Paper preparation format

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