



Contribution ID: 1729 Contribution code: TUPS01

Type: **Poster Presentation**

## Study of longitudinal effects during transition crossing of the EIC hadron storage ring

*Tuesday, 21 May 2024 16:00 (2 hours)*

The Electron Ion Collider (EIC) Hadron Storage Ring (HSR) will accelerate all species except protons through transition to the desired storage energy. The effects at transition may cause unwanted emittance blowup beam loss due to bunch area mismatch and negative mass instability. In this paper, we will show the longitudinal dynamics of transition crossing in the HSR with current parameters using the accelerator code Beam Longitudinal Dynamics (BLonD).

### Footnotes

### Funding Agency

Work supported by Brookhaven Science Associates, LLC under Contract No. DE-SC0012704 with the U.S. Department of Energy.

### Paper preparation format

LaTeX

### Region represented

North America

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**Session Classification:** Tuesday Poster Session

**Track Classification:** MC4: Hadron Accelerators: MC4.A04 Circular Accelerators