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# Understanding Hadronic Mass Through Light Meson Structure at the EIC

*Friday, 17 February 2023 11:00 (15 minutes)*

The Electron-Ion Collider (EIC) is a new US$2 billion high-luminosity accelerator that is expected to be operational at Brookhaven National Laboratory, USA at the beginning of the next decade. One of the main goals of the EIC is to understand the origin of hadronic mass, this is the majority of visible mass (>99%) in the universe. From the little that we understand, we know that the mass of these systems is intricately connected to their internal structure. To understand this structure, and therefore these mass generation mechanisms, we can examine one of the simplest hadronic systems we know of, mesons. My research work involves the study of light mesons (in particular K+) through Deep Exclusive Meson Production (DEMP) reactions. I have recently upgraded a DEMP [1] event generator to investigate K+ structure studies at the EIC. In this talk, I will present an update on these ongoing K+ studies and the modifications to the DEMP event generator that were required to conduct this study.

[1] https://github.com/JeffersonLab/DEMPGen.

## Supervisor

Garth Huber

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## Supervisor Email

huberg@uregina.ca

## Your Email

Love Preet

**Primary author:** PREET, Love (University of Regina)

**Co-authors:** Mr HUBER, Garth (University of Regina); Dr KAY, Stephen (University of Regina)

**Presenter:** PREET, Love (University of Regina)

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