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## Pulse Stretching out of the CANREB EBIS

The CANadian Rare isotope facility with Electron-Beam ion source (CANREB) at TRIUMF is set to deliver rare isotope beams in high charge states. In the Electron Beam Ion Source (EBIS) ions are charge-bred by collisions with an electron beam of up to 500 mA. A strong magnetic field (up to 6T) maximizes the electron beam density and increases the breeding efficiency. Ion confinement is maintained by a combination of an electrostatic field and the electron beam space-charge potential. Ions are released by lowering the trapping barrier potential. Presently, an extraction scheme with a step function produces pulses shorter than 10  $\mu$ s with high instantaneous rates that can saturate detectors in experiments. Stretching the pulse can be done using a slowly varying function to release the ions. The ideal function produces a pulse with a flat top distribution and can be calculated by knowing the ion energy distribution inside the trap. Pulse and energy distribution measurements as well as early results of pulse stretching will be discussed.

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