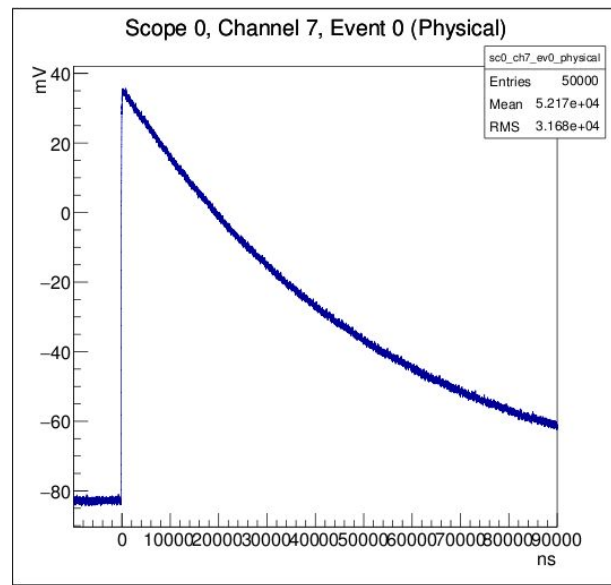
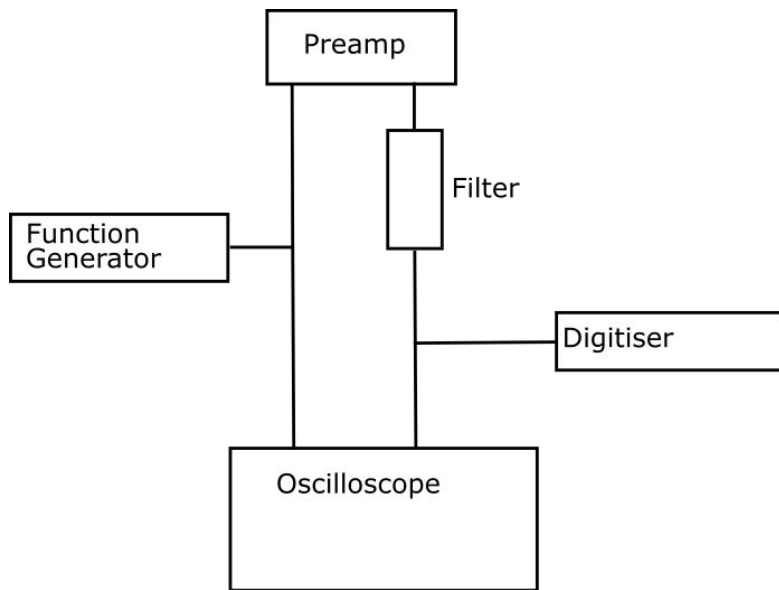


Preamp Gain Measurements

Harrison Ritchie-Yates
12th December 2018

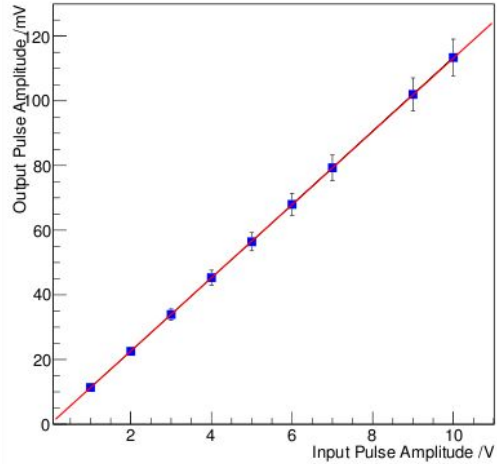
Preamp Gain Measurements

- The gain of the preamps was investigated by injecting a series of input pulses using a function generator, and measuring the output.

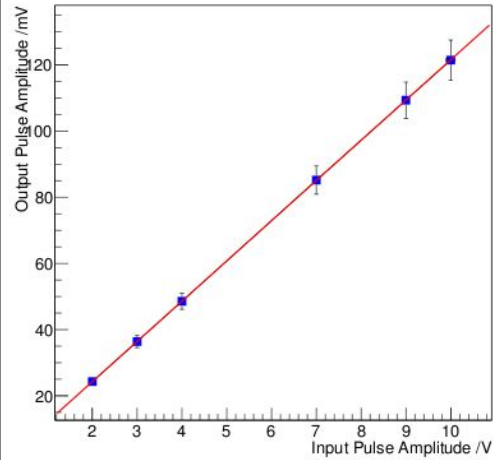


CR-112 Chips

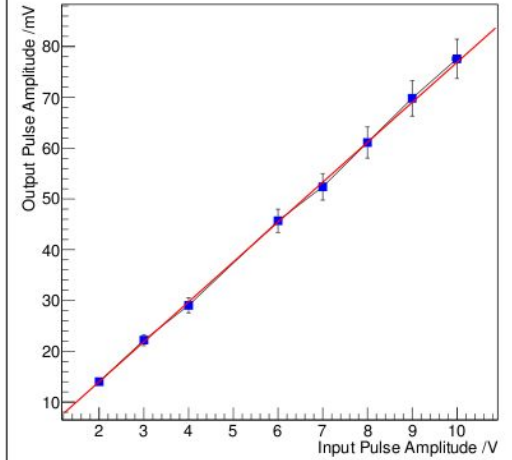
Preamp 1 C112



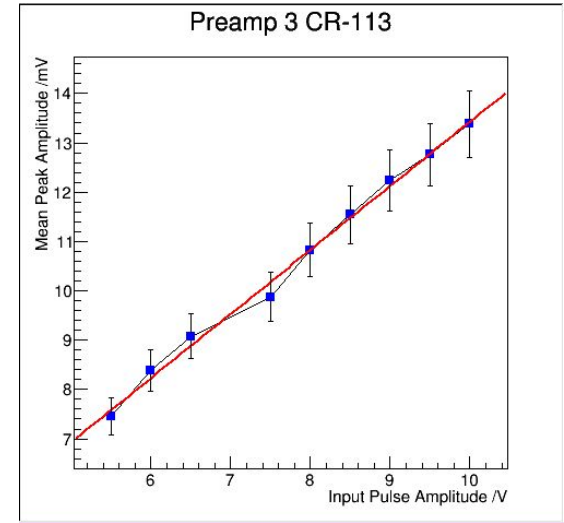
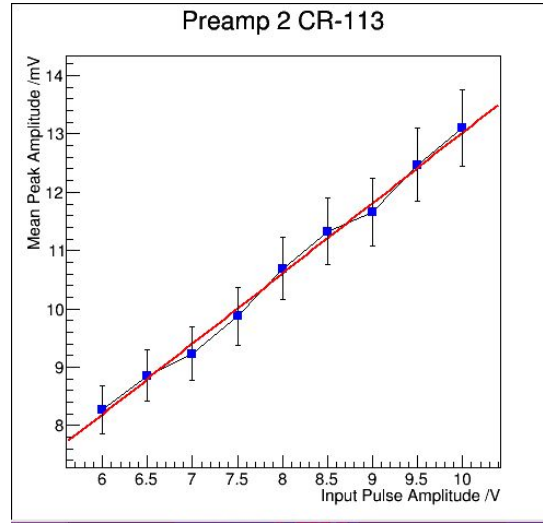
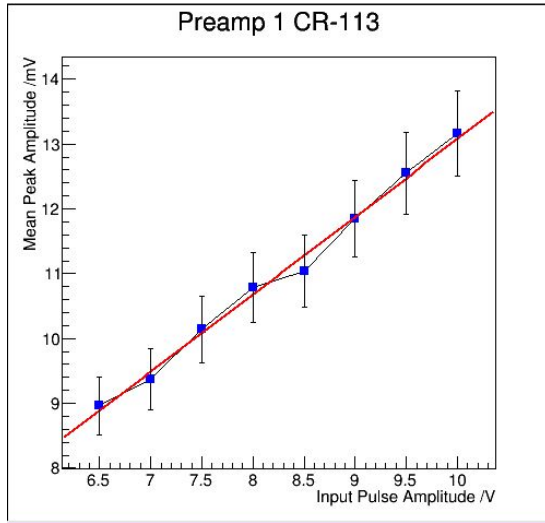
Preamp 2 C112



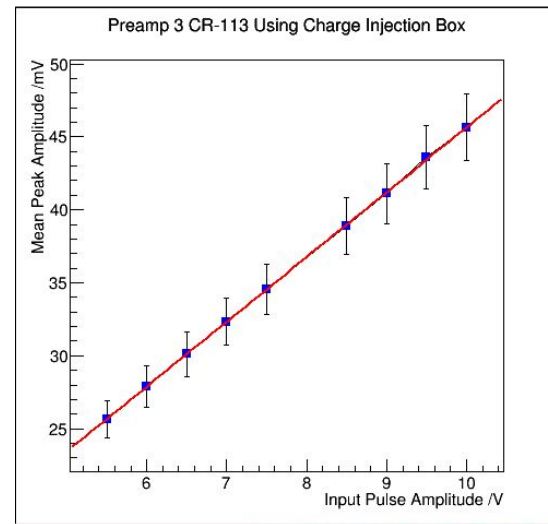
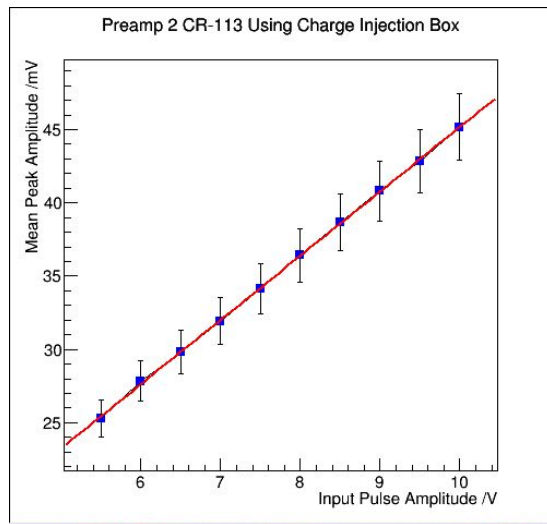
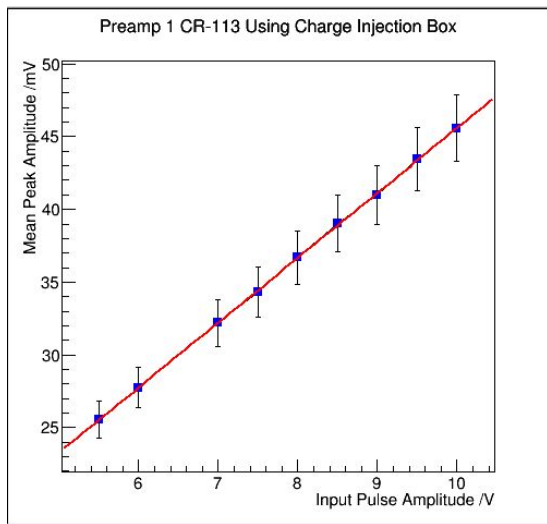
Preamp 3 C112



CR-113 Chips



CR-113 Chips With Charge Injection



Preamp Gain Measurements - Results

- The CR-112 chips, are expected to have a gain of 15 mV/pC.
- The CR-113 chips, are expected to have a gain of 1.5 pC/mV.

Preamp	Gain
CR-112 A1-1	11.3 ± 0.7 mV/pC
CR-112 A2-1	12.1 ± 0.7 mV/pC.
CR-112 A3-1	7.93 ± 0.5 mV/pC

Preamp	Gain
CR-113 A1-1	1.21 ± 0.07 pC/mV
CR-113 A2-1	1.22 ± 0.07 pC/mV
CR-113 A3-1	1.29 ± 0.08 pC/mV

Preamp	Gain
CR-113 A1-1 (CI)	1.25 ± 0.07 pC/mV
CR-113 A2-1 (CI)	1.11 ± 0.07 pC/mV
CR-113 A3-1 (CI)	1.11 ± 0.07 pC/mV