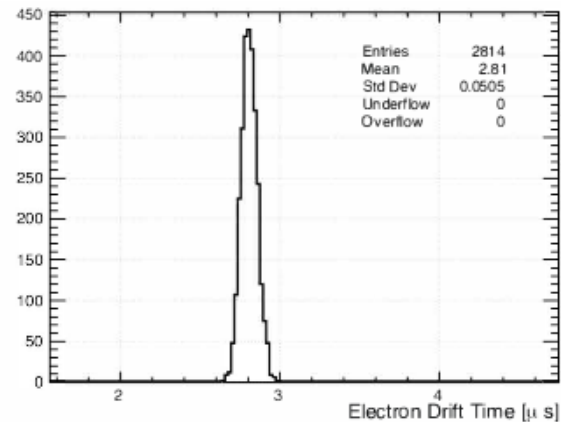
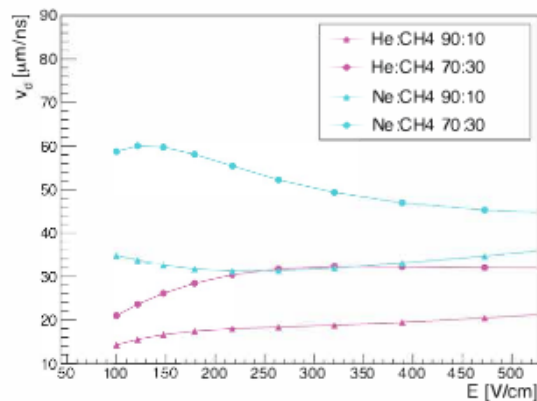


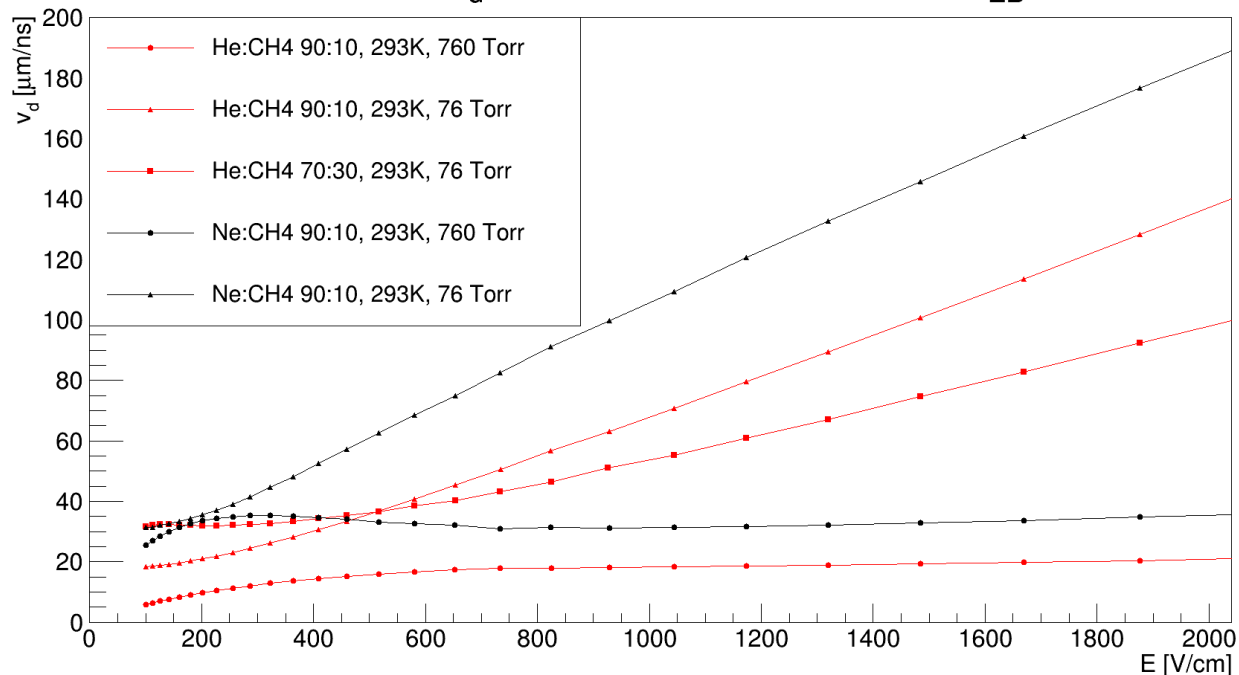
Drift Time Simulations in MRI



- Temp ~115K, pressure 0.1atm

Drift Time Latest Garfield++ for STP (room temp and varying pressure)

Drift Velocity v_d [$\mu\text{m/ns}$] along E ($B=4.7\text{T}$, $\theta_{EB} = 0^\circ$)



- Since MRI graph was for low temp, created similar graph at room temperature to have on record
- Due to scaling of drift velocity with E/p , at room temp still need low pressure (also for material density)
- EG: For upper limit drift distance 5cm, he:CH4 90:10 at 0.1atm (76Torr), have max drift velocity 2.5us at $E \sim 200\text{V/cm}$