

Diagrams from negative ion measurements

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Lepcol meeting

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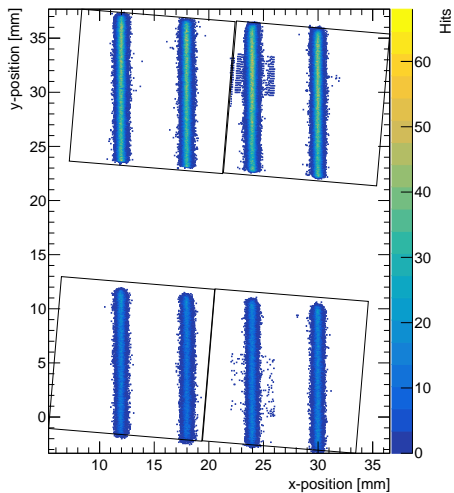
Negative ion measurements

Run 1036–1041 and run 1042

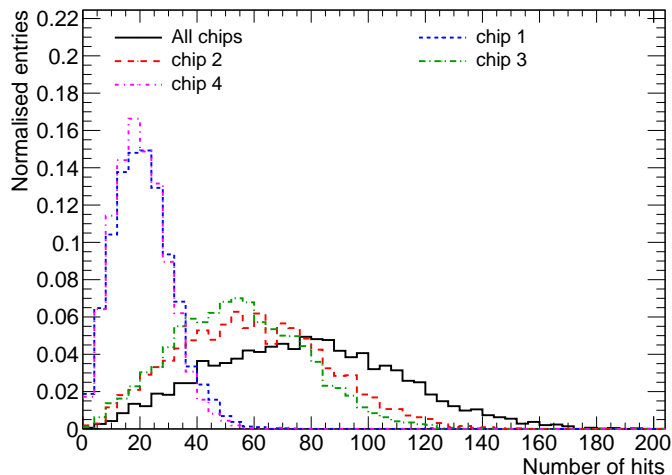
- Ar/iC₄H₁₀/CS₂ 95/4.5/0.5 gas mixture
- Drift field is -150 V/cm to -400 V/cm and -280 V/cm
- Grid voltage is -380 V

Hitmap

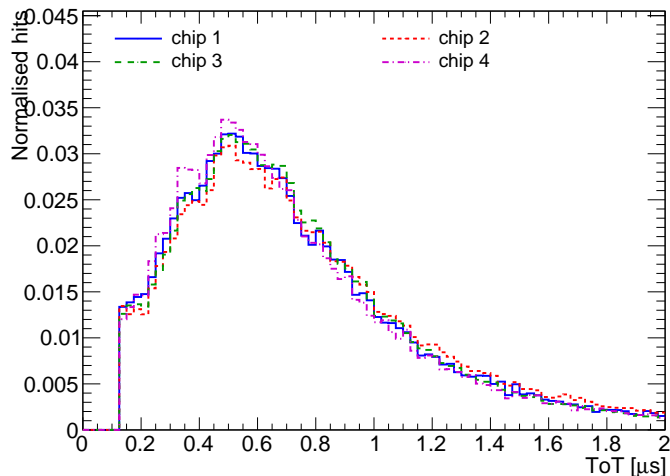
Projection on XY plane (not on quad plane)



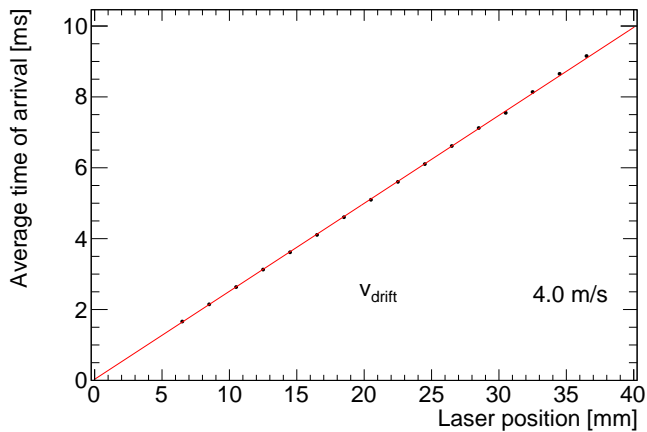
Number of hits



Time over threshold

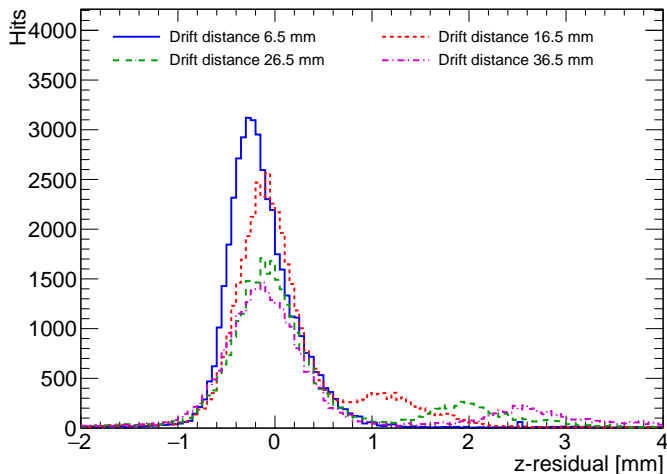


Drift velocity



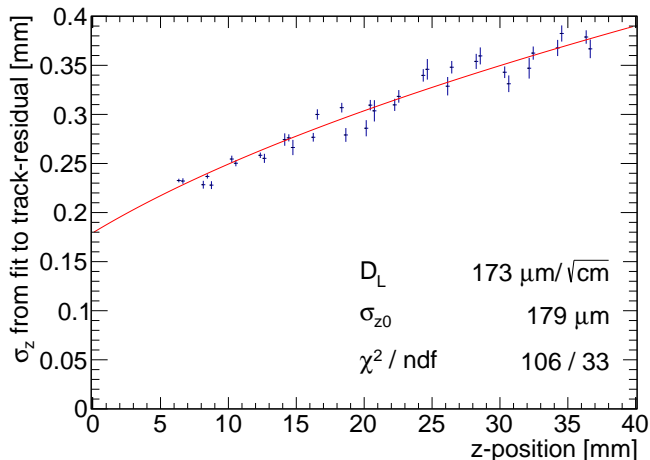
z residual as function of drift distance

A second ion type is visible for the longer drift distances

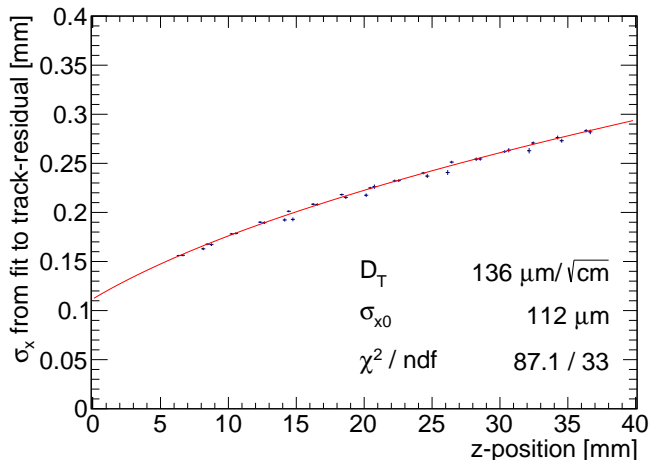


Hit resolution in longitudinal direction

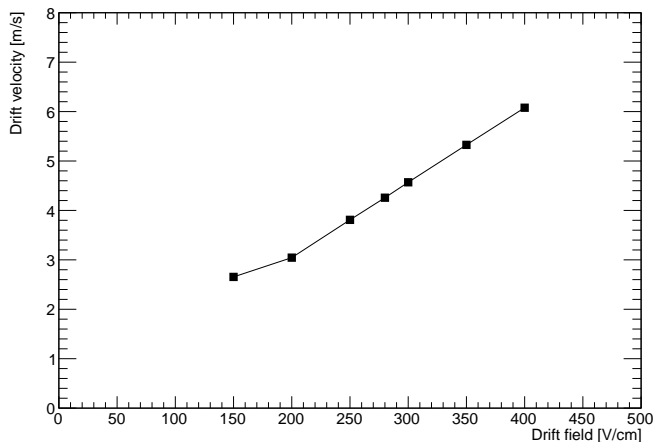
There is some uncertainty because of the second ion



Hit resolution in transverse direction

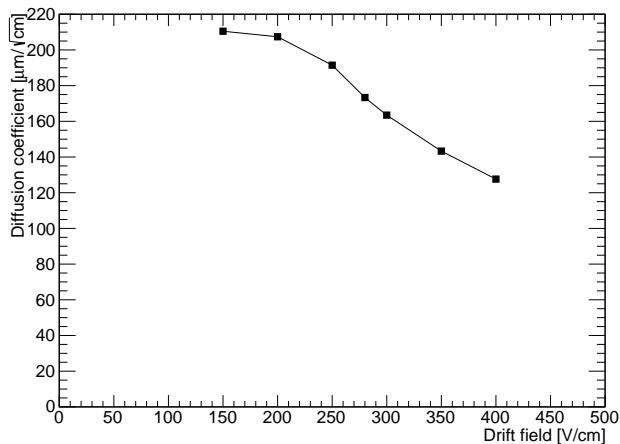


Drift velocity as a function of field strength



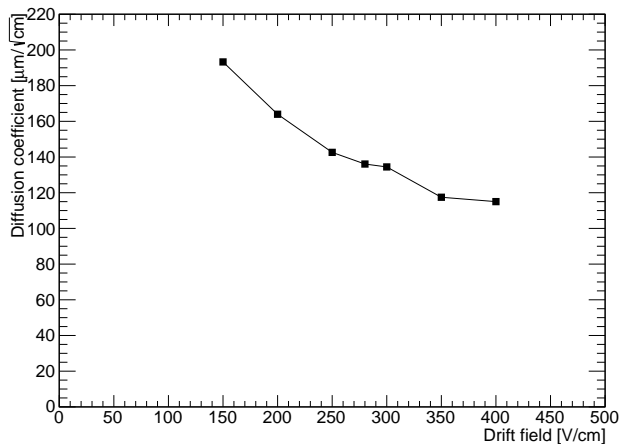
Estimate of longitudinal diffusion coefficient

with only 3 points in z per field strength

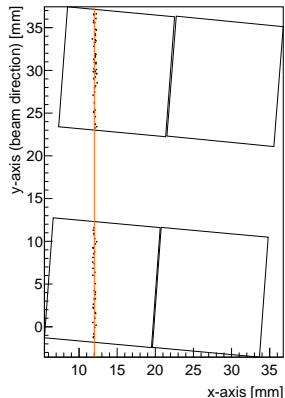
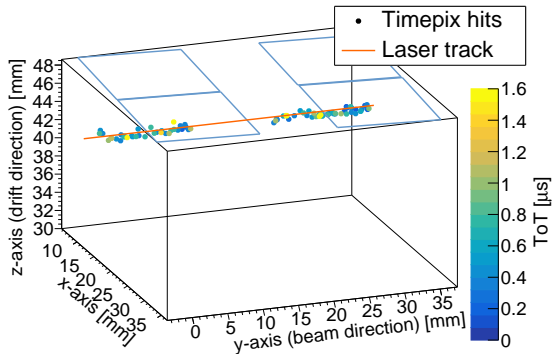


Estimate of transverse diffusion coefficient

with only 3 points in z per field strength



Event display



Event display

