

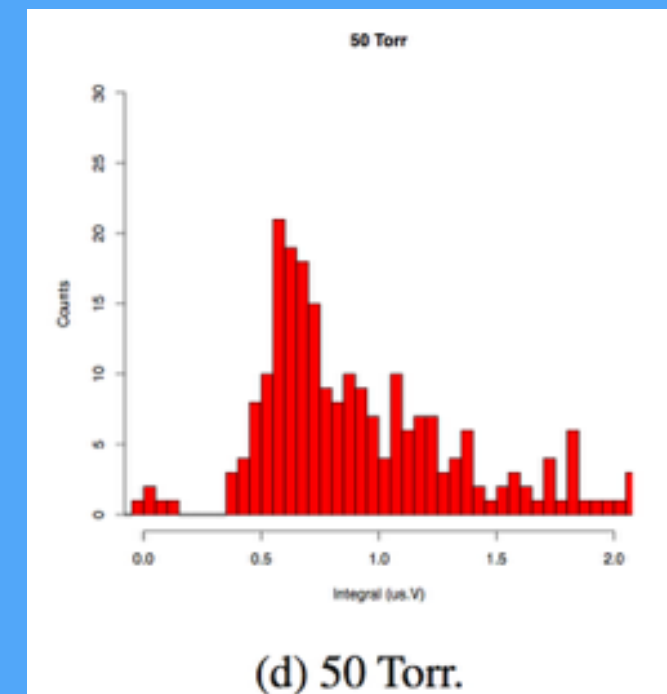
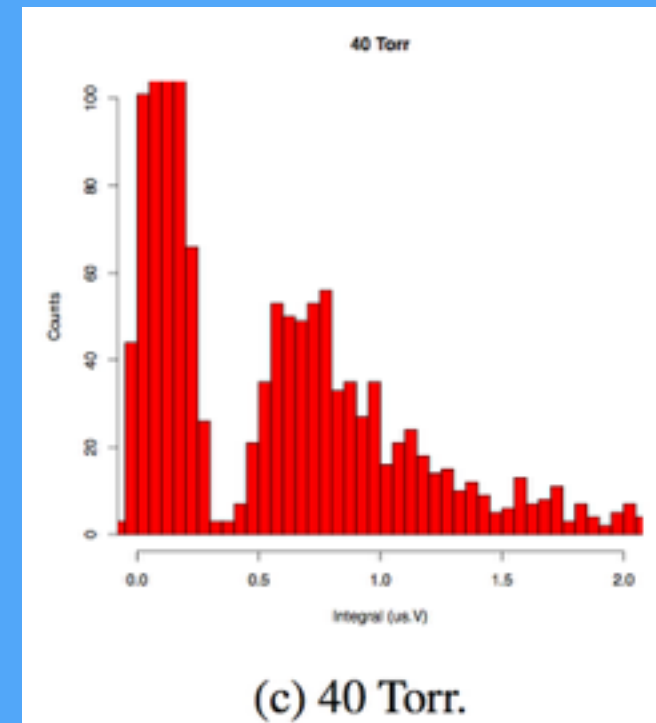
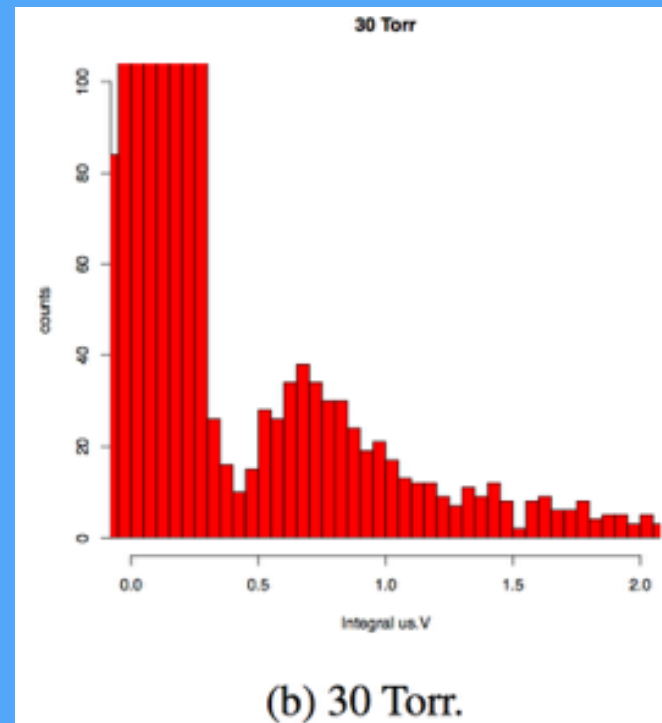
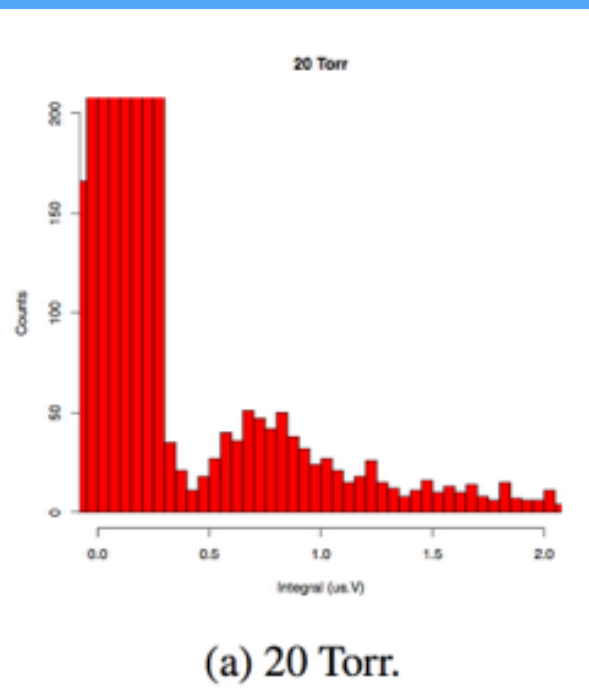


The  
University  
Of  
Sheffield.

# CYGNUS Gas Meeting

Andrew Scarff  
7 June 2017

# Gains in SF<sub>6</sub>



| Pressure (Torr) | THGEM Voltage (V) | Gain            |
|-----------------|-------------------|-----------------|
| 20              | 770               | 8900 $\pm$ 2200 |
| 30              | 840               | 8000 $\pm$ 2000 |
| 40              | 900               | 8000 $\pm$ 2000 |
| 50              | 940               | 6800 $\pm$ 900  |

Table 7.1 Gain measurements for different pressures of SF<sub>6</sub>.

# Gain in SF<sub>6</sub>

- Gains of up to 8900 achieved in SF<sub>6</sub>.
- Stable running found in 20 - 50 Torr.
- High gains not achieved in 100 Torr.
  - Could see <sup>241</sup>Am alphas, but not high enough gain to do gain calibration with <sup>55</sup>Fe.

# Head-Tail

- Some evidence of head-tail effect seen but not much, needs more data
  - THGEM continuously discharging in high field so will need replacing.
- Will be continued by others in Sheffield.
- This will be my last CYGNUS call :(
  - Moving to Vancouver for SuperCDMS postdoc at end of June :D