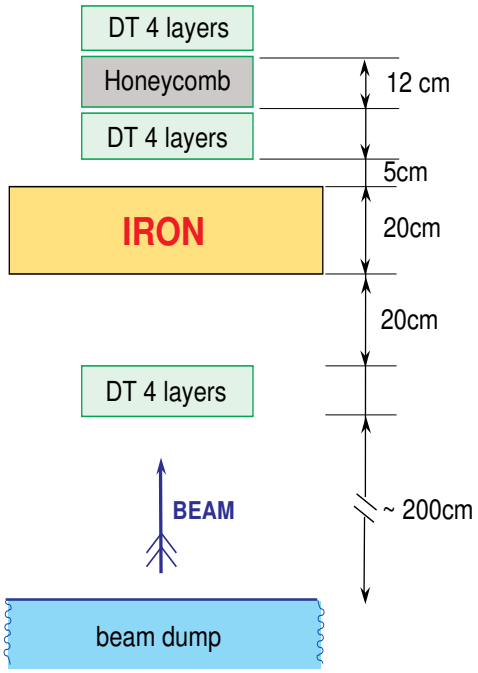
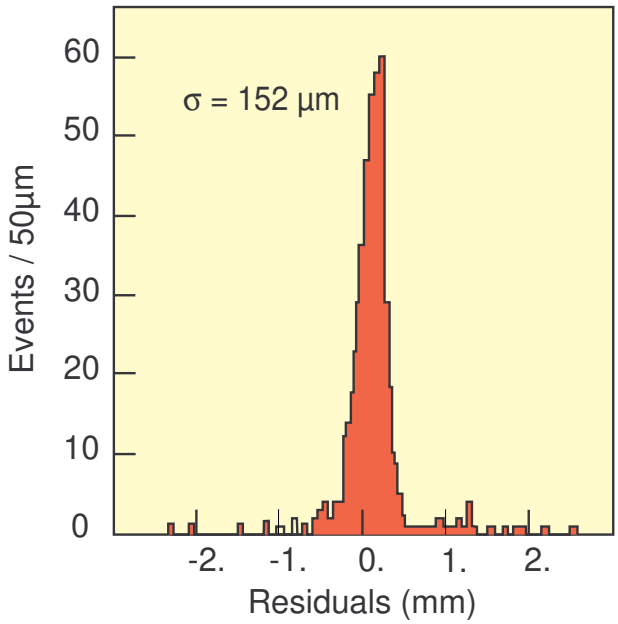
# DT Chamber Performance

## Tests performed in RD5 with two prototypes




Plastic tubes; Ar-Ethane mixture;
Metallic tubes; Ar-$CO_2$ (85-15): $\sigma$ = 230 μm
(preliminary value from Nov. 94 test)

| Momentum [GeV] | ∂'s per layer [%] | ∂'s confined in one layer [%] | Shower prob. [%] |
|---|---|---|---|
| 100 | 5.7 ± 0.2 | 79 ± 4 | 3.9 ± 0.3 |
| 200 | 5.5 ± 0.2 | 77 ± 4 | 5.5 ± 0.4 |
| 300 | 5.9 ± 0.2 | 78 ± 5 | 6.4 ± 0.3 |
| 1000 (simul.) | | | ≈ 12 |

| Efficiencies [%] for 200 GeV muons for | No Iron | Iron | Simul. |
|---|---|---|---|
| 3 aligned hits in near SL | 94.1 | 89.1 | 90.3 |
| 3 aligned hits in far SL | 95.4 | 89.9 | 91.5 |
| less than 3 aligned hits in both SLs | 0.6 | 3.2 | |
| 3 aligned hits out of the 8 layers | 99.0 | 98.0 | ≈ 98.0 |