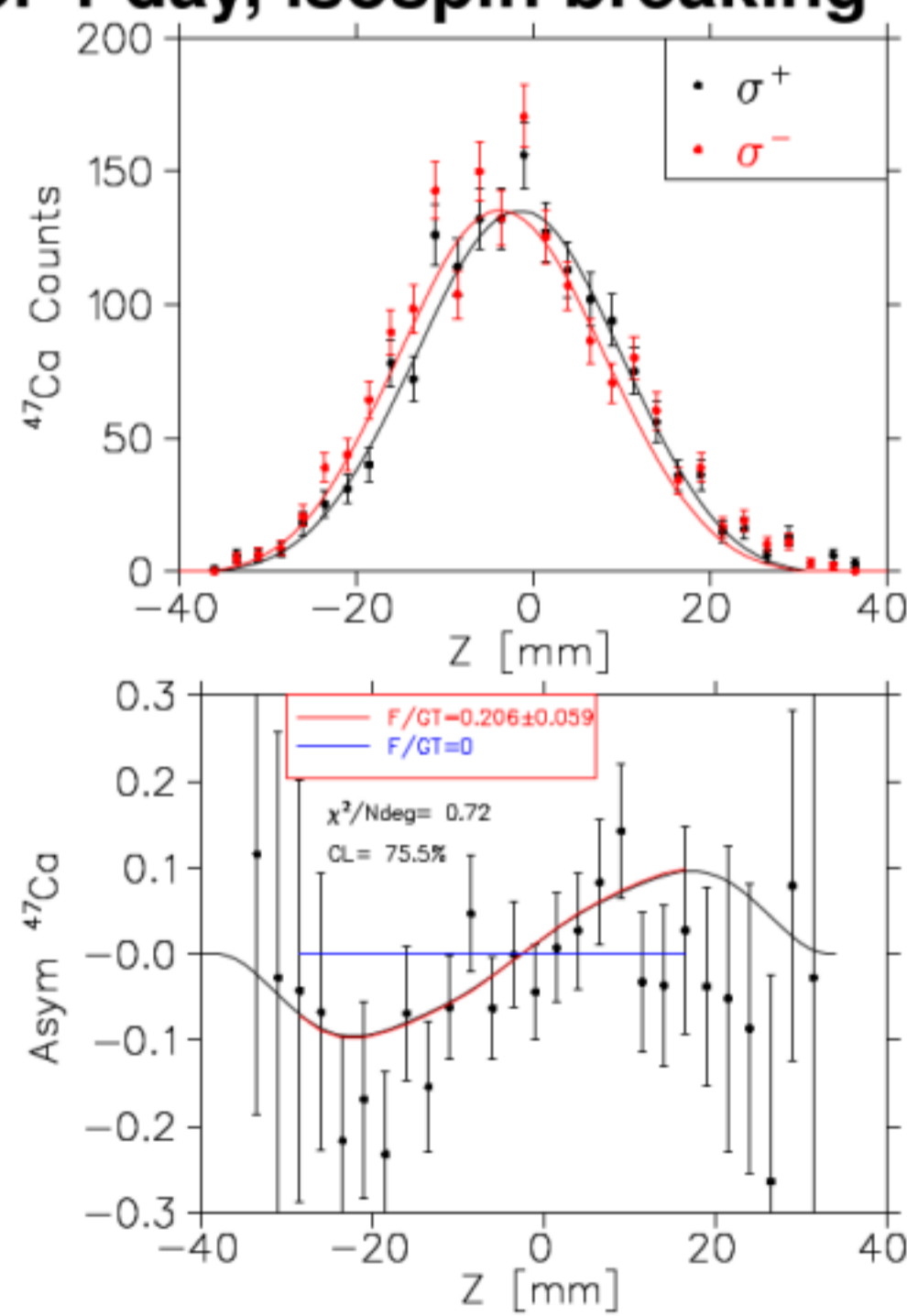
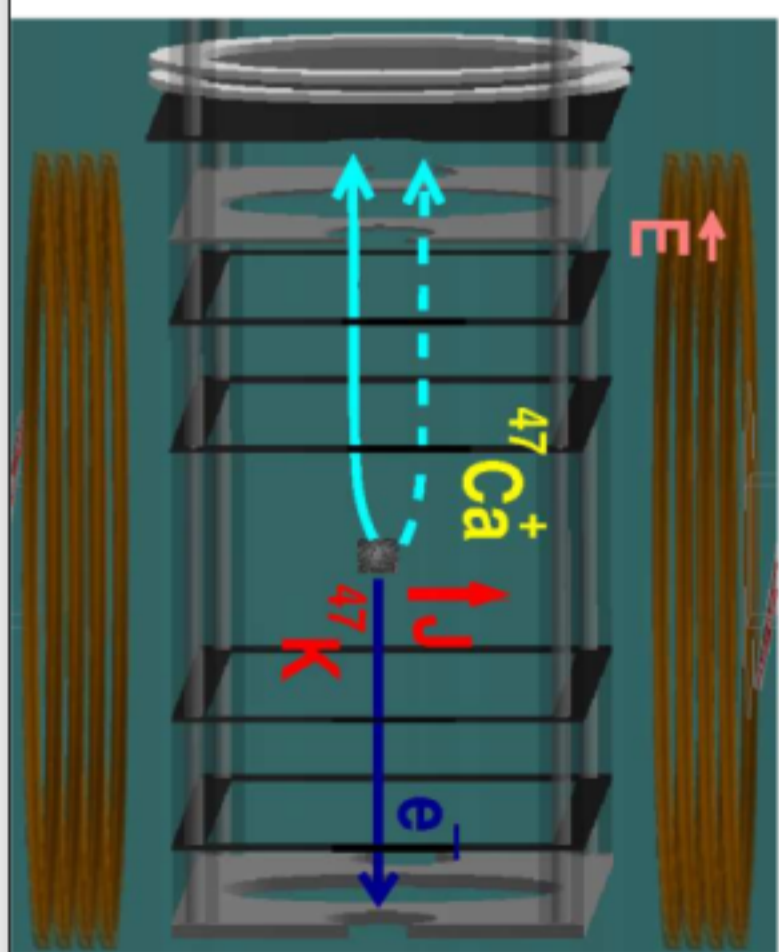
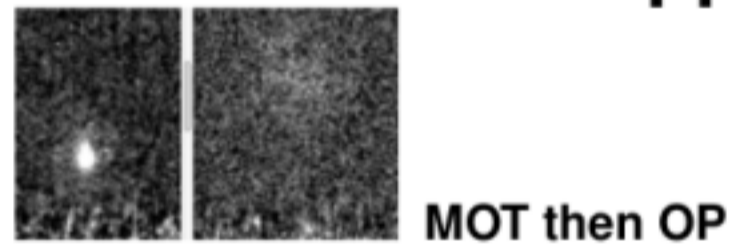


1000 atoms trapped for 1 day, isospin breaking ⁴⁷K Preliminary *without weak mag*



- Nonzero ⁴⁷Ca asymmetry wrt spin ⇒ a nonzero M_{Fermi}
- $M_F / M_{GT} = 0.21 \pm 0.06 \text{ stat} \pm ? \text{ syst} \Rightarrow \langle \bar{A} | V_{Coulomb} | A \rangle = 160 \pm 50 \text{ stat} \pm ? \text{ syst keV}$
- A_{recoil} is damped at extreme Z by a ~6% bkg from untrapped ⁴⁷K, measured by dedicated 'poof' tests
- Apparatus is symmetric: X projection flat at 1σ to 0.05; Unpolarized data has X, Z projections flat ~ 0.01
- β' 's fire the eMCP with ~ 20% quantum efficiency– these we measure to be ~ 0.002 correction

weak magnetism $2s_{1/2}$ nucleon

$$A_\beta \propto 1 + 0.005 E_\beta / E_0;$$

weak magnetism larger and d_i finite for the 20% $1/2^+ \rightarrow 3/2^+$ transition

These figures are with $Z_{wrong} = Z1 - Z2$

#Flipping both to $Z = Z2 - Z1 \Rightarrow M_f < 0$

