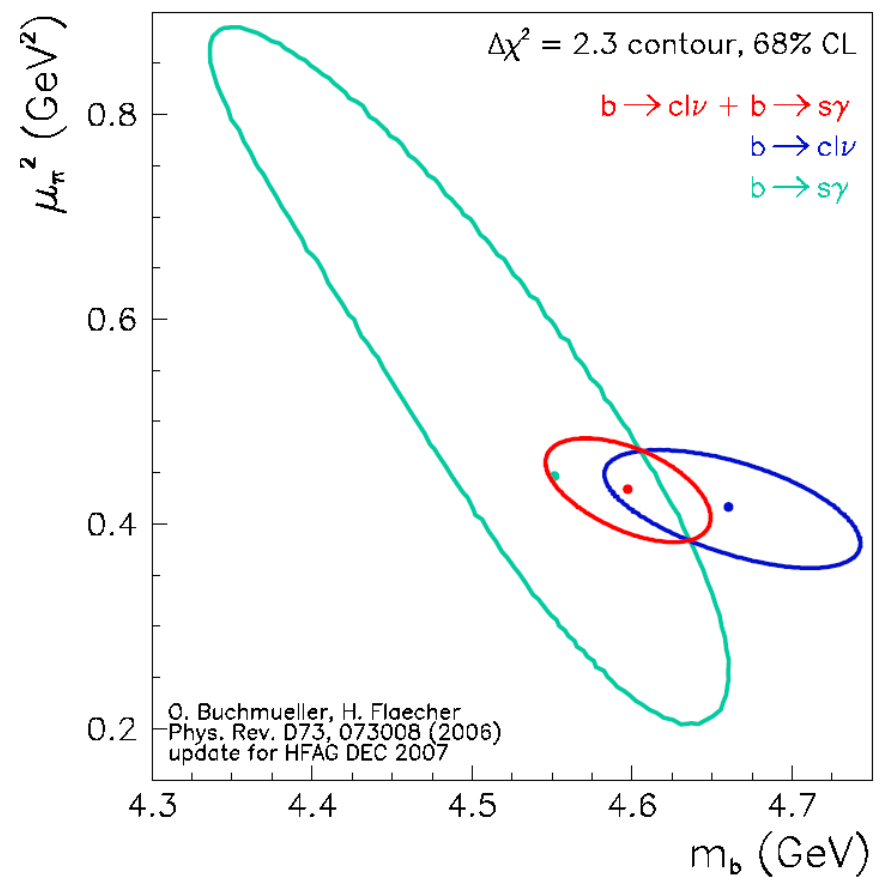
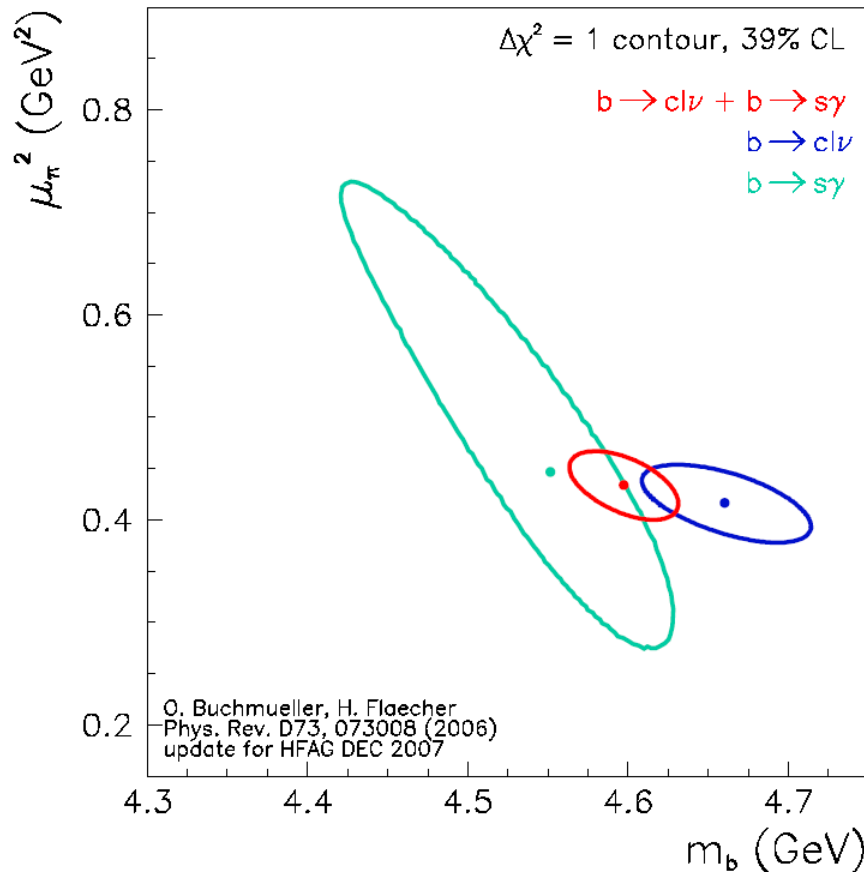


# Agreement between $b \rightarrow cl\nu$ and $b \rightarrow sg$ moments



No statistically significant discrepancy!

# mb translation from kinetic to SF scheme

Use result of OPE fit in kinetic scheme:  
mb,  $\mu_{\pi^2}$ , ...

Based on this, calculate  $\langle E \rangle$  and  $\langle (E - \langle E \rangle)^2 \rangle$   
at 1.6 GeV (+ errors!):

$$\langle E \rangle = 2.291 \pm 0.015 \text{ GeV}$$

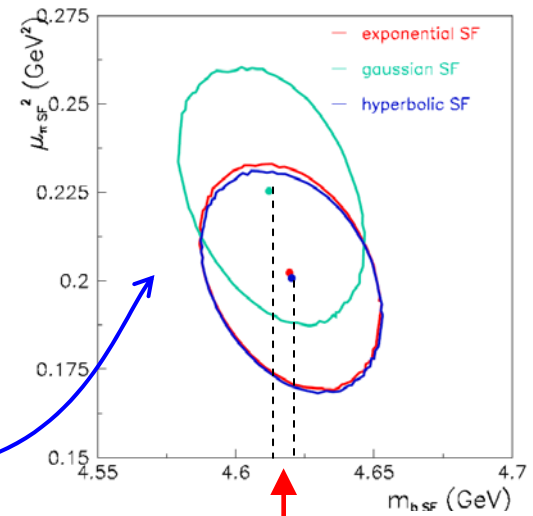
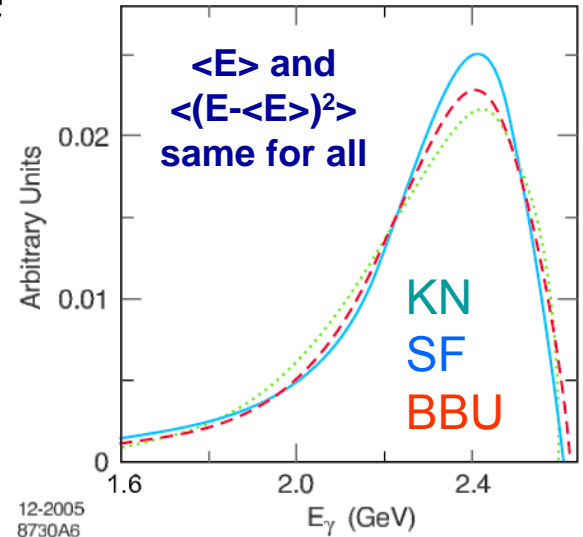
$$\langle (E - \langle E \rangle)^2 \rangle = 0.0445 \pm 0.0029 \text{ GeV}^2$$

Note: These values contain theory uncertainties  
(higher orders etc.) as obtained from  
combined fit!!

Fit these predicted moments in alternative schemes

Residual SF dependence at 1.6 GeV?

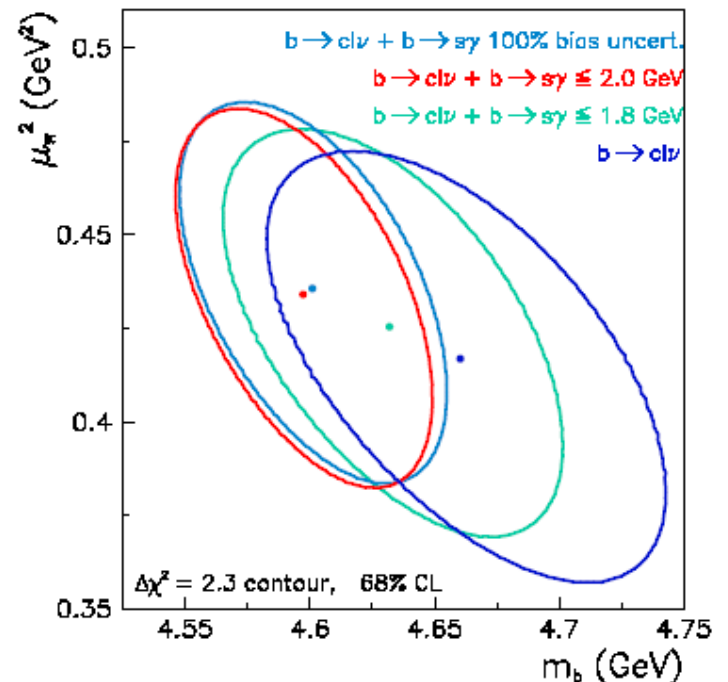
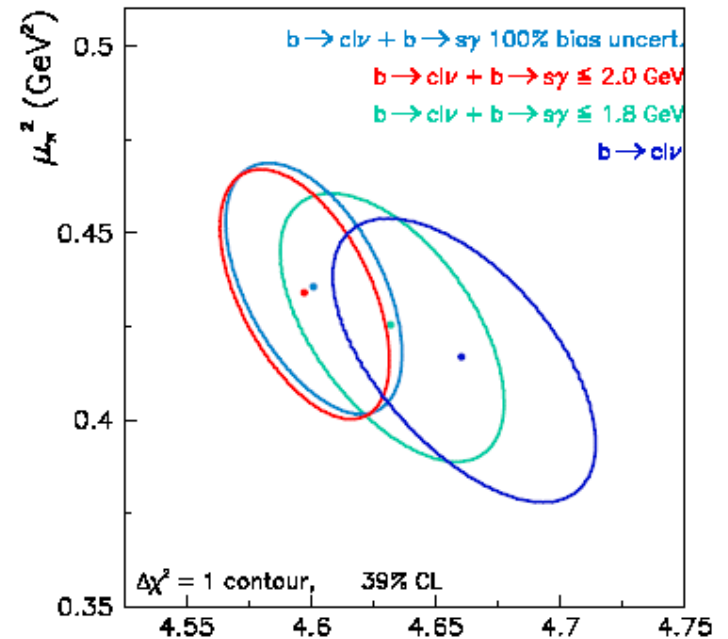
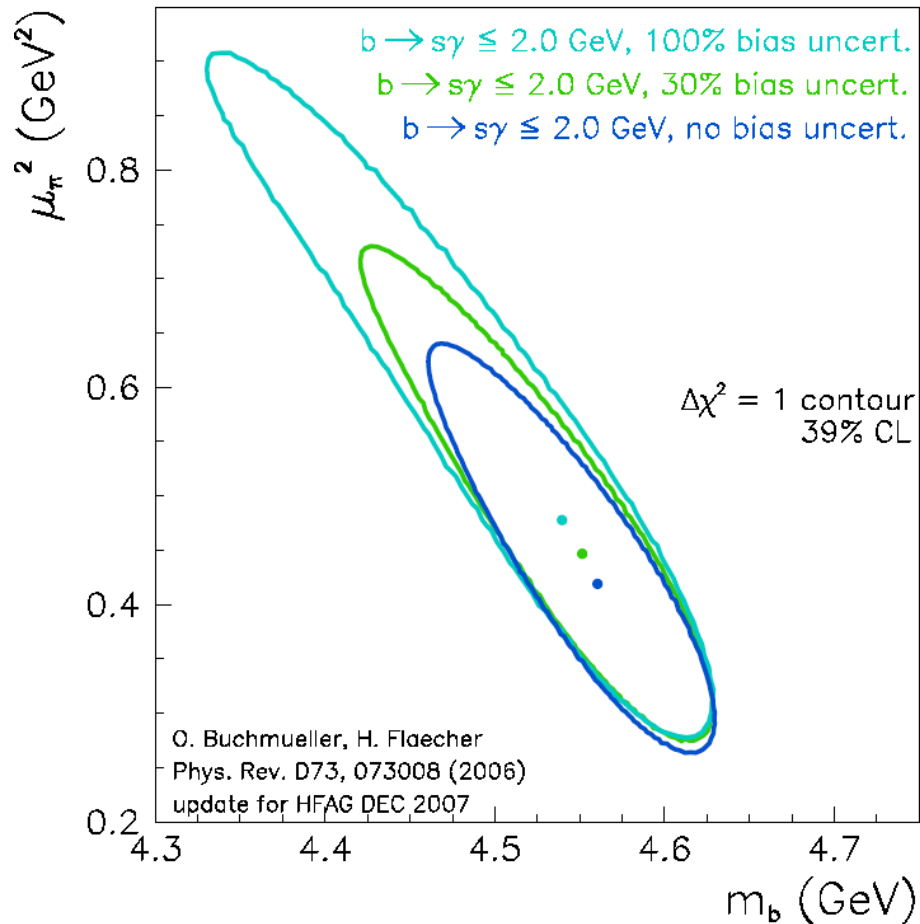
Try different SF Ansatzze:



~10MeV

# mb dependence on bias corrections

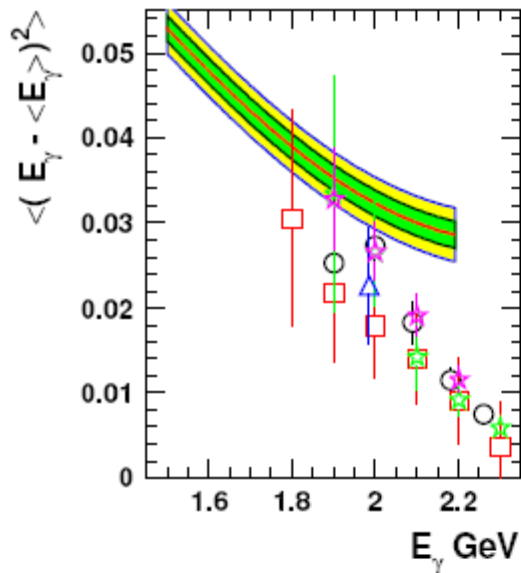
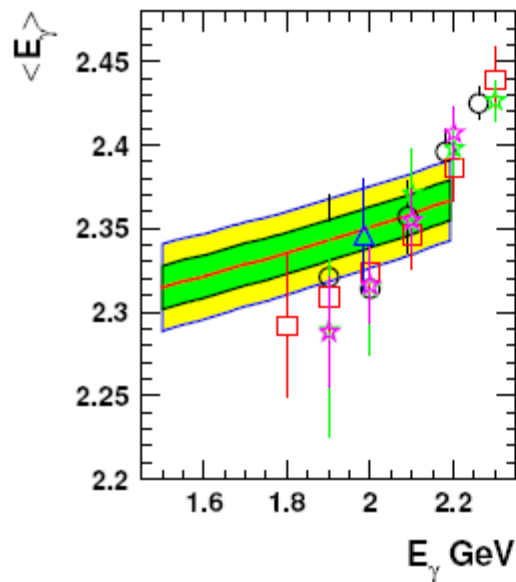
Investigate dependence on fitted SF parameters on bias corrections:



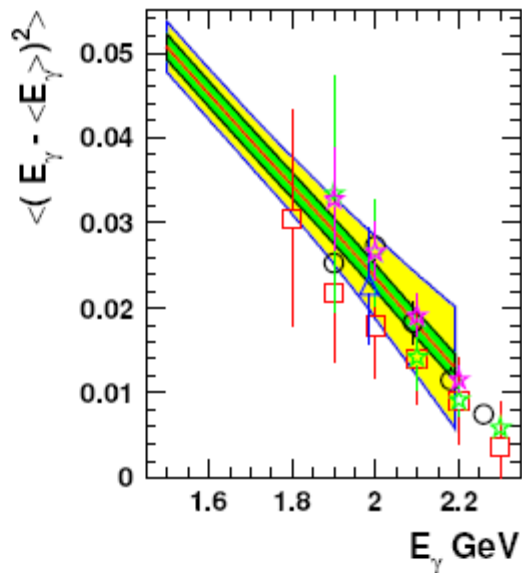
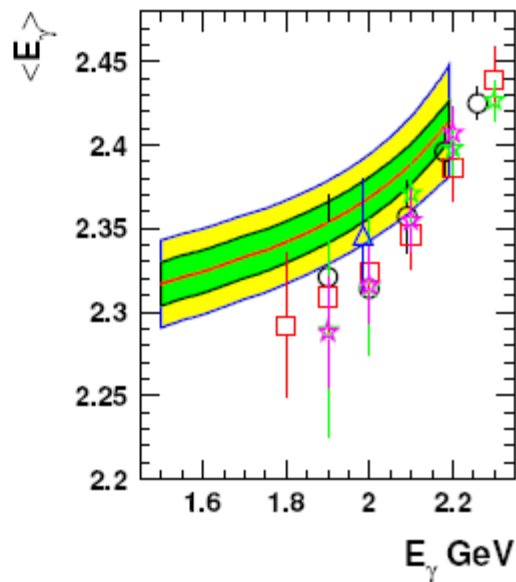
Prediction from  $b \rightarrow cl\nu$  fit  
( $b \rightarrow sy$  moments not included)

$b \rightarrow sy$  moments with  
 $E_\gamma \leq 2.0$  GeV included in fit

standard local OPE



+ bias corrections



+ bias corrections

