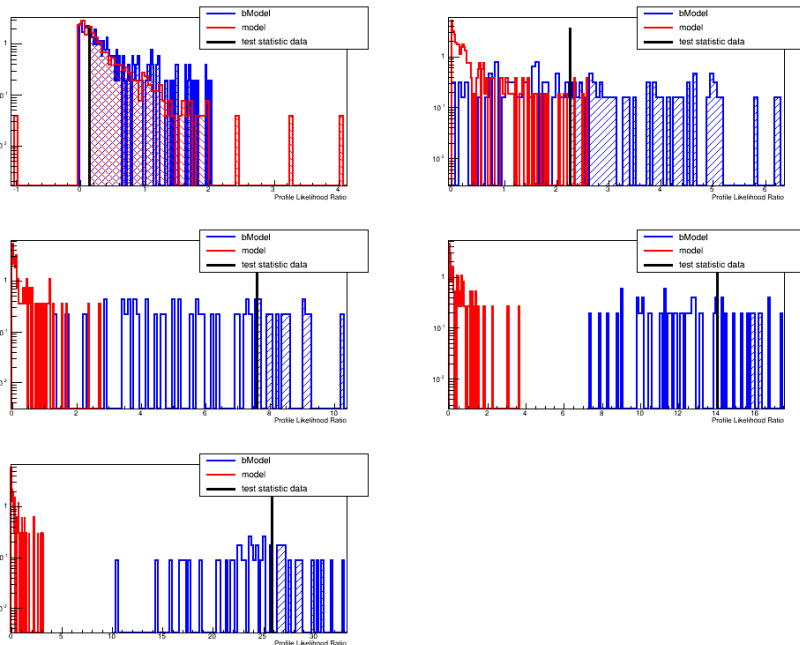


# EFT Progress 2018-01-31

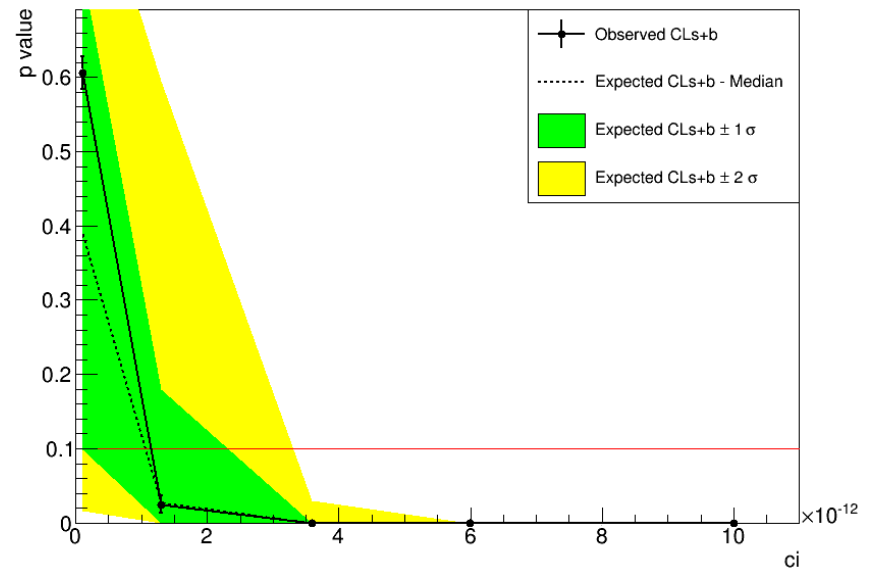
Shaun Alsum

# POI now $c^2$ (coupling constant)

- Specifically,  $(c/m_V^2)^2$  where  $m_V=(2G_F)^{-1/2}$
- Results in limit  $\sim 10^{-7}$ , correct scale.



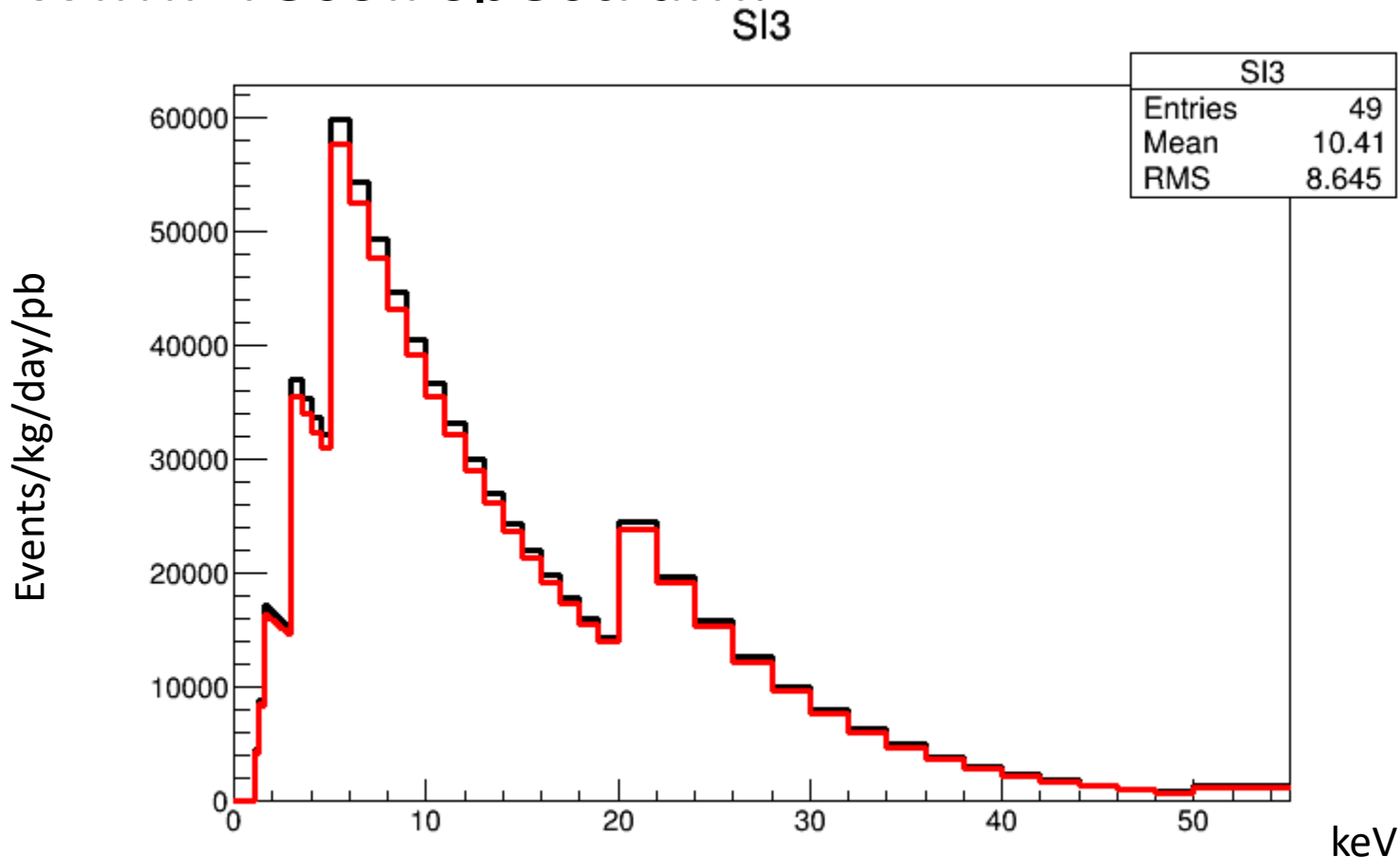
HypoTestInverter Result For  $c_i$



Factor of 86400 too high

# WIMP Spectrum Comparison

- Comparing both shape *and* overall scale of the WIMP recoil spectrum.



# One problem

- After taking away the erroneous factor of 86400 and trying to further restrict the scanning range of the hypotestinverter, time to run a limit changed from ~50 minutes to at least 10 hours. Almost no idea what's caused this.

# Re-arranged code and put in github

- Is available on the EFT branch of the lux limits code.
- Carl Gwilliam has gotten it working on the liverpool cluster.
  - A few minor changes using cvmfs instead of pdsf module system.