

## Comparing $Q$ -values

- Want to verify Brendan's cut optimization.
- Computed  $Q$ -values using John's and Brendan's cuts on the newest MC (signal) and Crab IACT dataset (background).

# Cuts

- Several event-quality and bin cuts are applied in addition to PINCness and compactness.
- Computed Q-value is for just PINCness and compactness. I.e.

$$\text{efficiency} \equiv \frac{\text{number of events passing all cuts}}{\text{number of events passing quality and bin cuts}}. \quad (1)$$

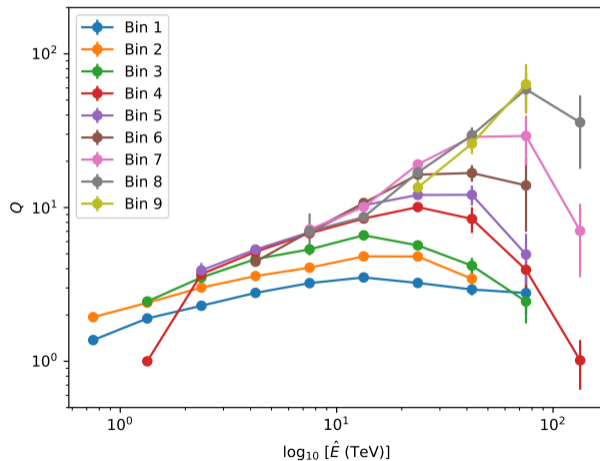
## Additional cuts

- $f_{\text{hit}}$  bin edges.
- $\hat{E}$  bin edges.
- Angle-fit success.
- Core-fit success.
- $\text{rec.nChAvail} \geq 700$ .
- $\text{rec.coreFiduScale} \leq 100$ .
- Angular bin.

## Q-value errors

- Derived Q-value error taking into account correlation of numerator and denominator in efficiency expression.
- I can type this up if people are interested in seeing it. It probably already exists somewhere.

# John's cuts



# Brendan's cuts

