### $\ell\nu qq$ Fit Studies

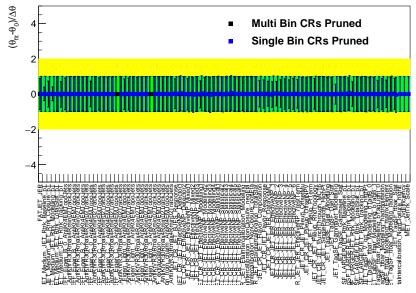
Natasha Woods, Mike Hance, Robert Les, Lailin Xu

August 20, 2019

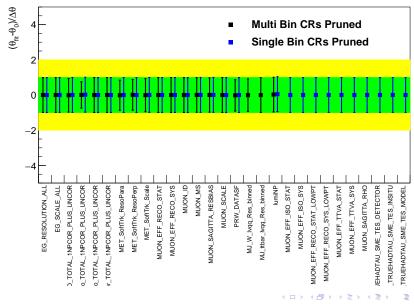
 Multiple Bin vs Single Bin CR Pruned Fit Studies Asimov CRs CR Data

 Multiple Bin vs Single Bin CR Fit Studies Asimov CRs CR Data

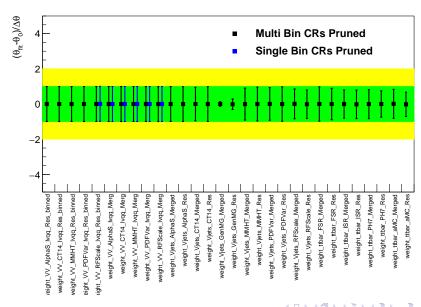
# Asimov CRs: Jet Systematics



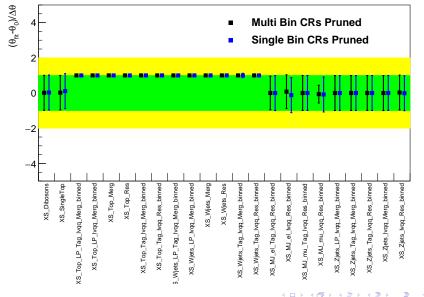
# Asimov CRs: Other Experimental Systematics



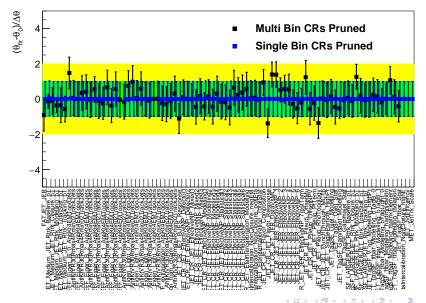
# Asimov CRs: Theory Systematics



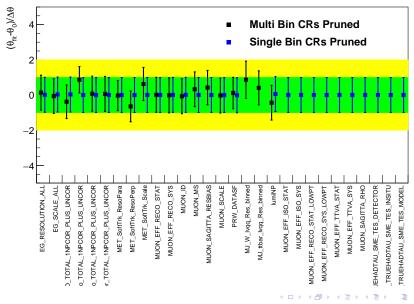
### Asimov CRs: Background Normalizations



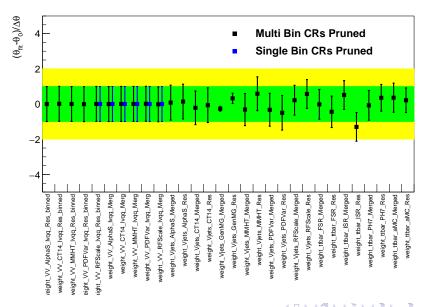
# Data CRs: Jet Systematics



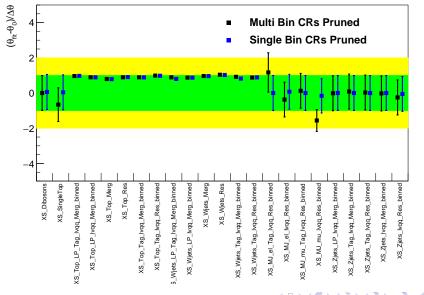
# Data CRs: Other Experimental Systematics



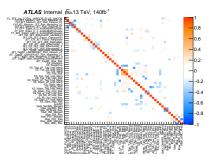
### Data CRs: Theory Systematics



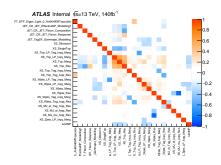
### Data CRs: Background Normalizations



#### Data CRs: Correlations

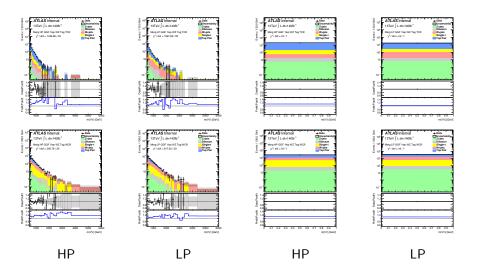


MultiBin CRs Pruned

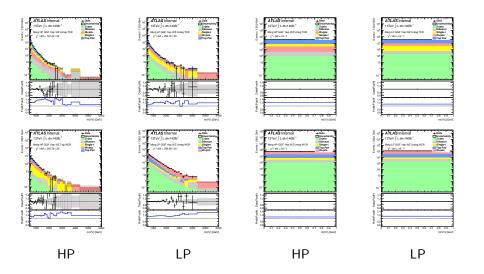


Single Bin CRs Pruned

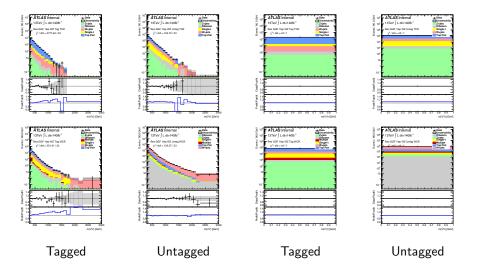
# Data CRs: Merged Tag PostFits



# Data CRs: Merged UnTag PostFits

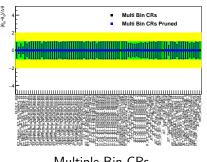


#### Data CRs: Resolved PostFits

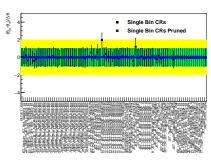


Multiple Bin vs Single Bin CR (with and without Pruning Fit Studies)

# Asimov CRs: Jet Systematics

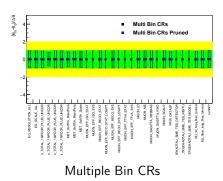


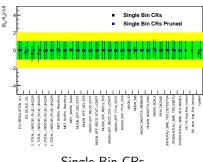
Multiple Bin CRs



Single Bin CRs

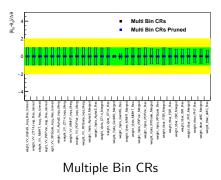
# Asimov CRs: Other Experimental Systematics

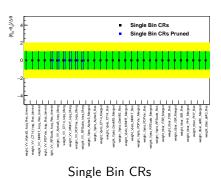




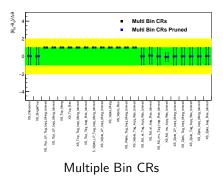
Single Bin CRs

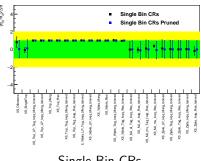
# Asimov CRs: Theory Systematics



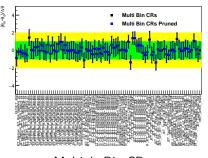


# Asimov CRs: Background Normalizations

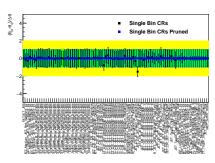




### Data CRs: Jet Systematics

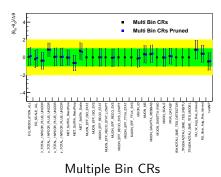


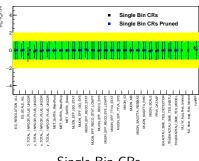
Multiple Bin CRs



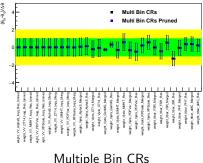
Single Bin CRs

### Data CRs: Other Experimental Systematics

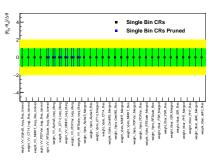




### Data CRs: Theory Systematics

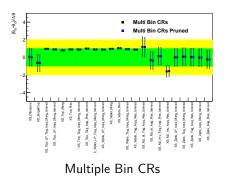


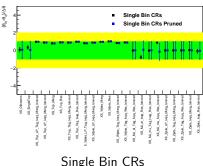
Multiple Bin CRs



Single Bin CRs

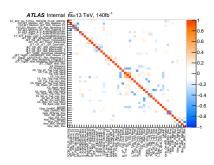
### Data CRs: Background Normalizations



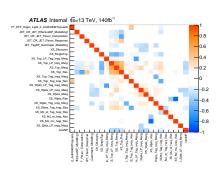


Single Bin CRs

#### Data CRs: Correlations



MultiBin CRs Pruned



Single Bin CRs Pruned

### Thoughts + Plans

- Pruned Single Bin Fits seem healthy
- Check background normalization, Post-Fit Yields, Correlations
- Check Ranking Plots (when jobs are complete)
- Finish Combining Workspaces and send to Lailin (Limits)