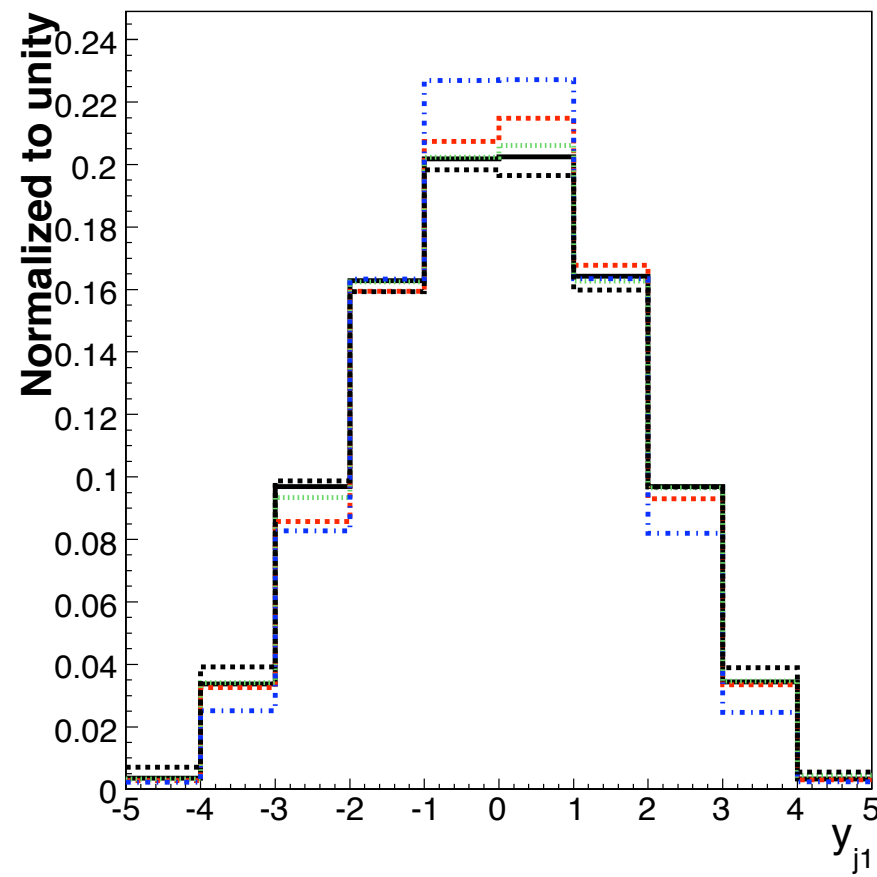
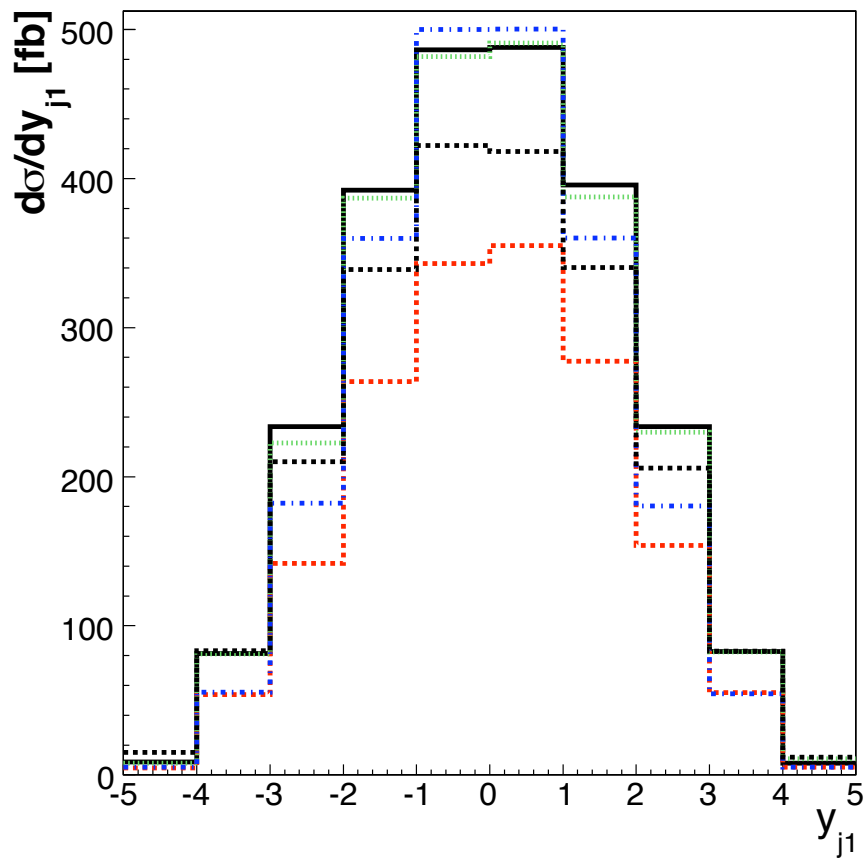
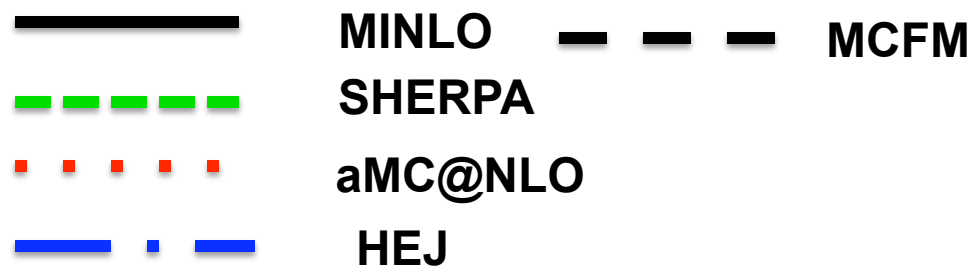


ggF+2j: Comparison between generators

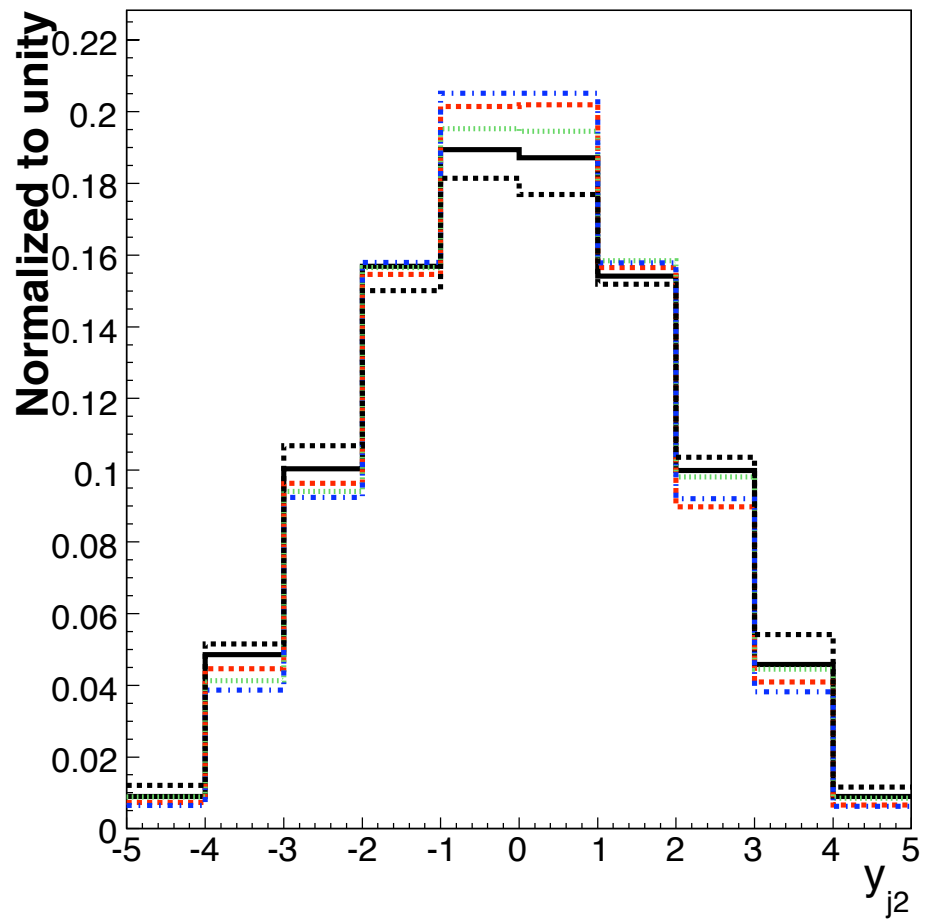
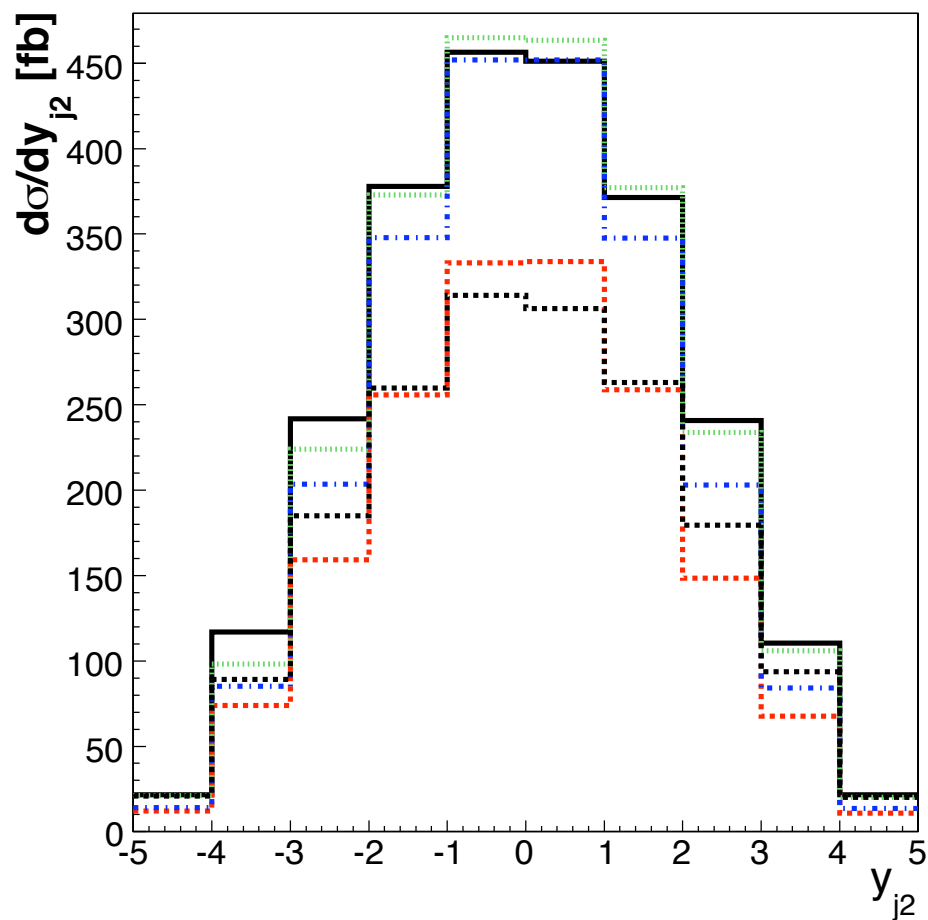
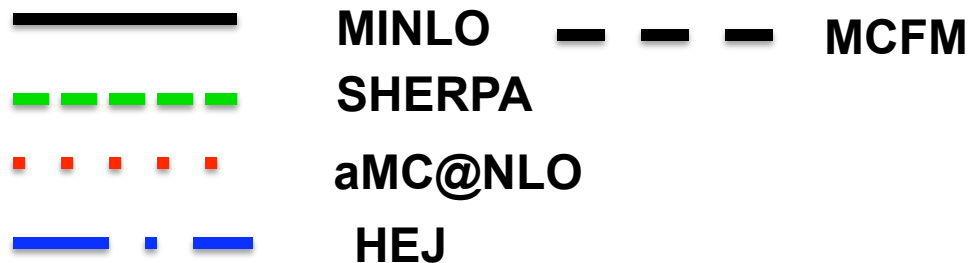
Jet subgroup meeting 20/12/12

- ❑ **In addition to the results from HEJ/aMC@NLO/ SHERPA/MINLO we added results from MCFM**
 - ❑ **Apologies that could not correct for the different normalizations. Will be done soon**
 - ❑ **Some of the important distributions are normalized to the same area**
- ❑ **Used process 270 (H->gammagamma)**
- ❑ **Scales set to $(m_h^2 + p_{tH}^2)^{1/2}$**
- ❑ **CTEQ6.6 used as pdf**
- ❑ **Generated 300M events to make sure statistical fluctuations not an issue**

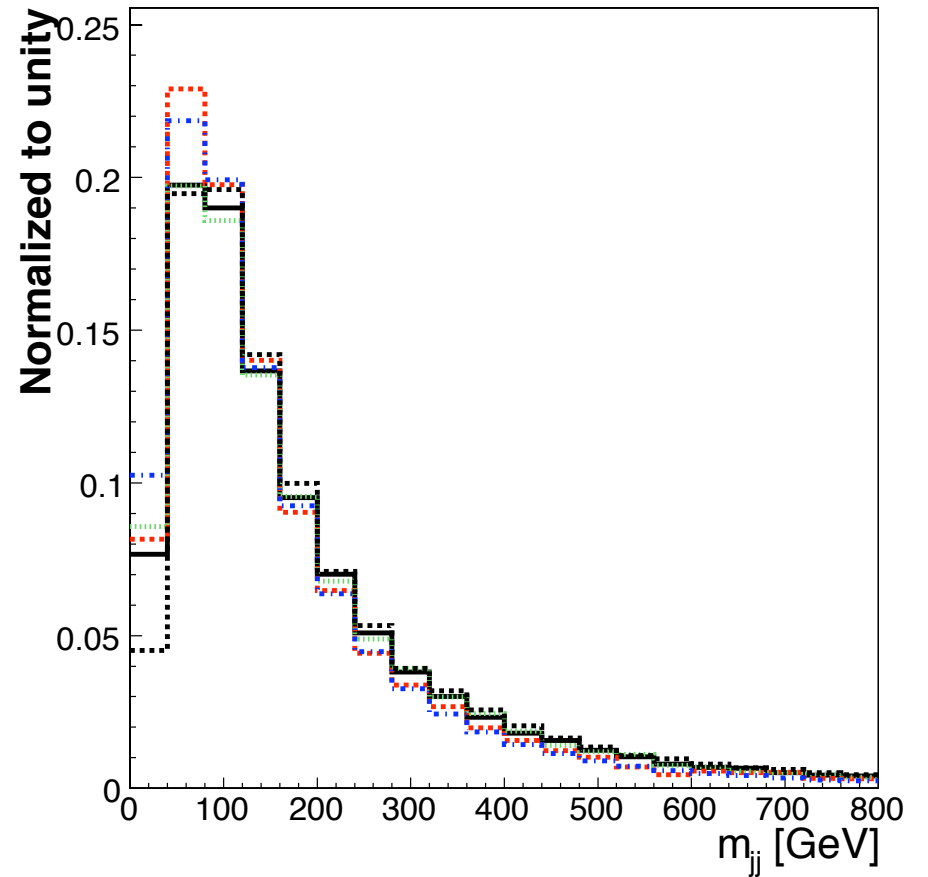
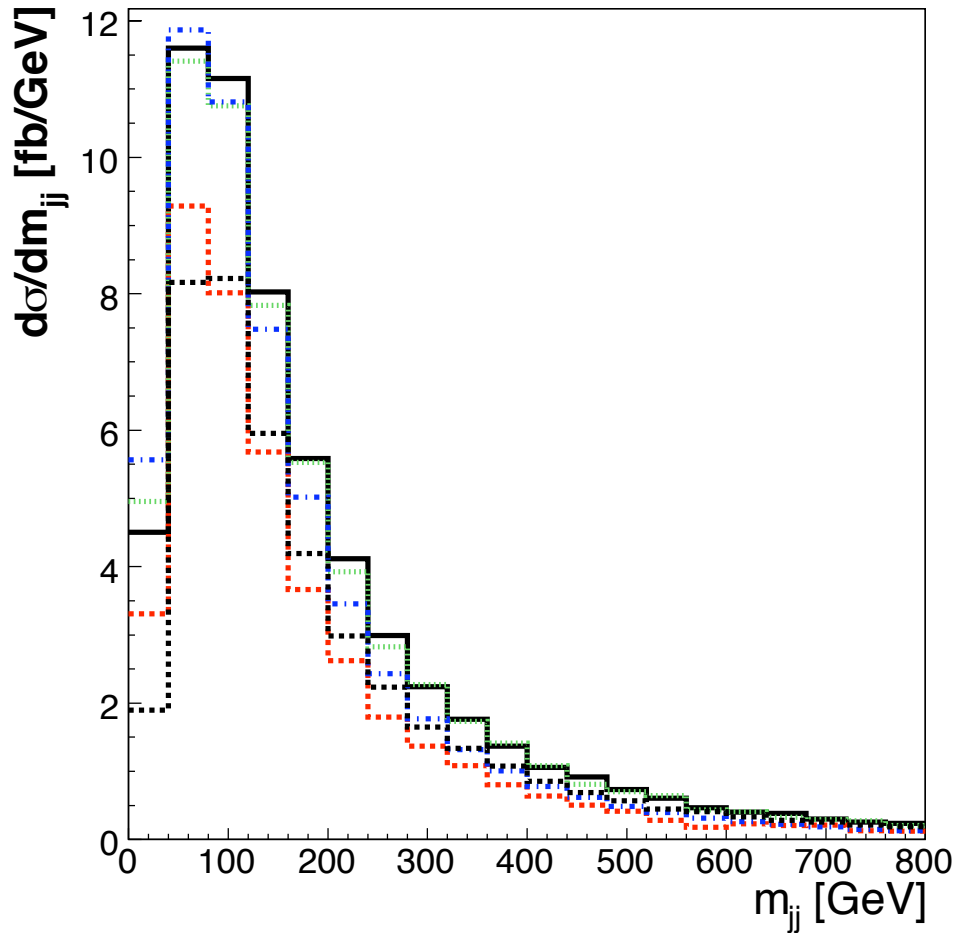
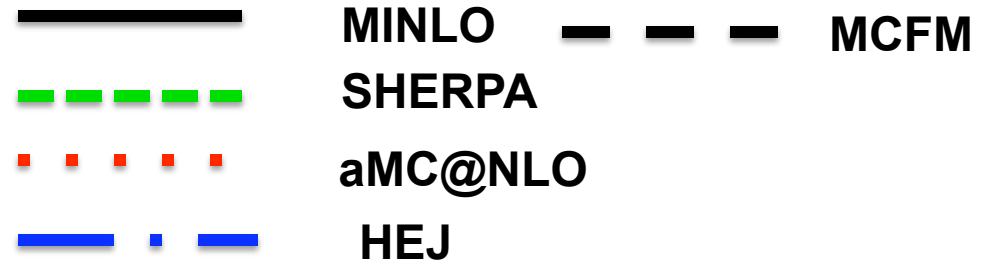
Distributions of ggF+2j **BEFORE**
VBF topological cuts



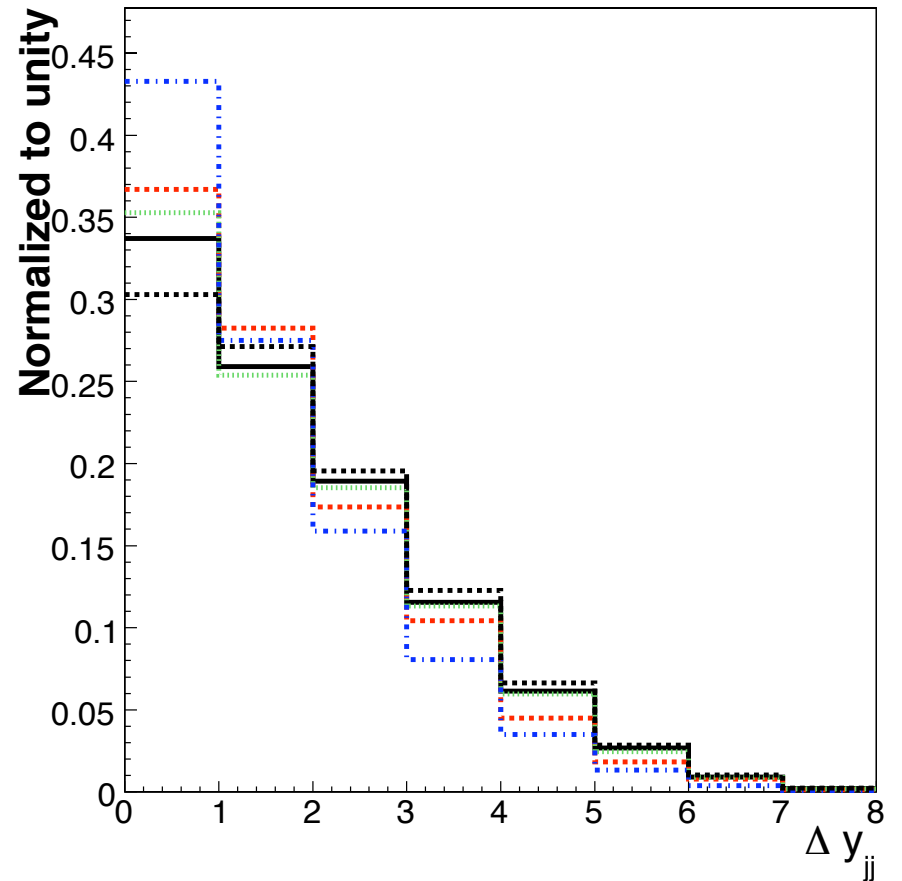
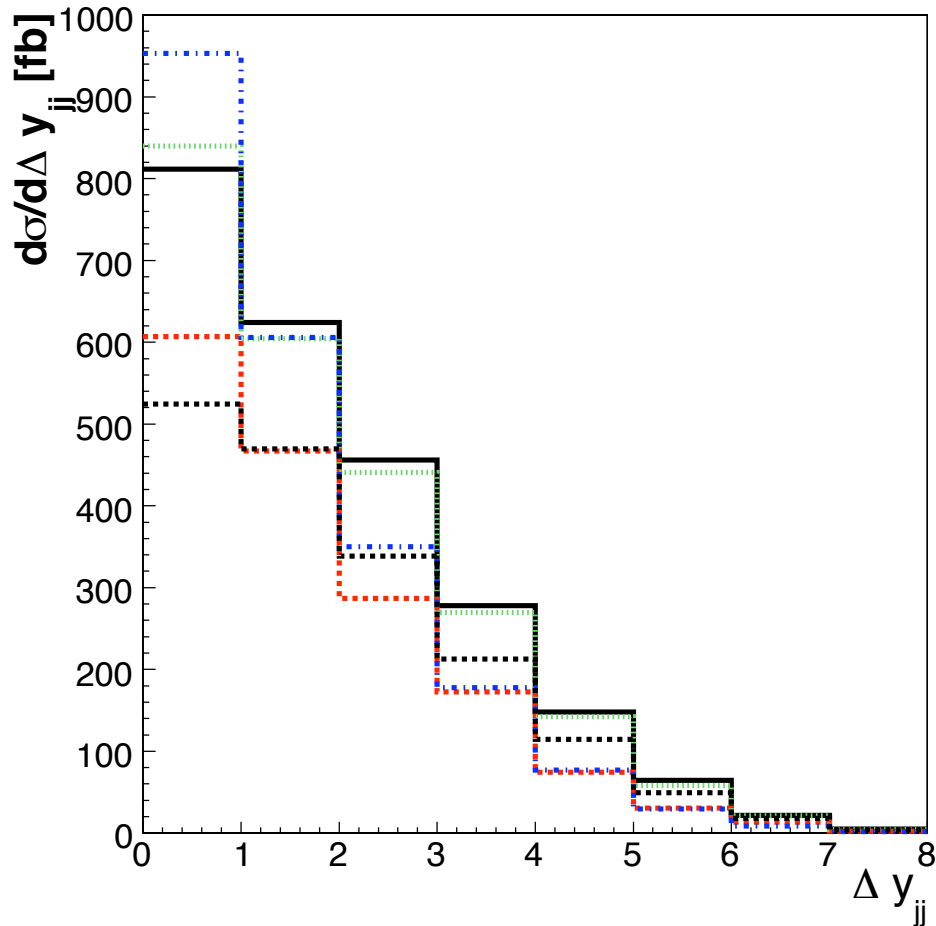
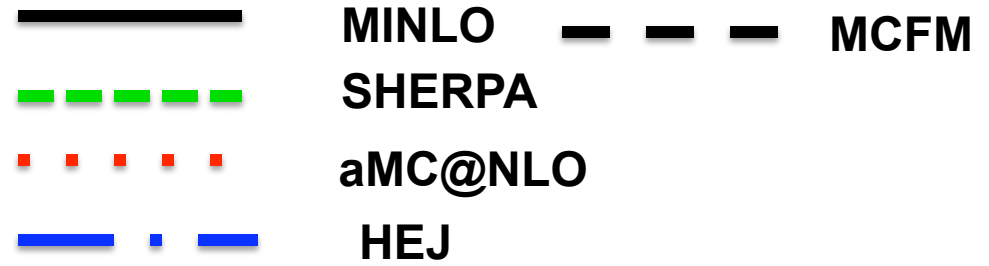
Distributions of ggF+2j **BEFORE**
VBF topological cuts



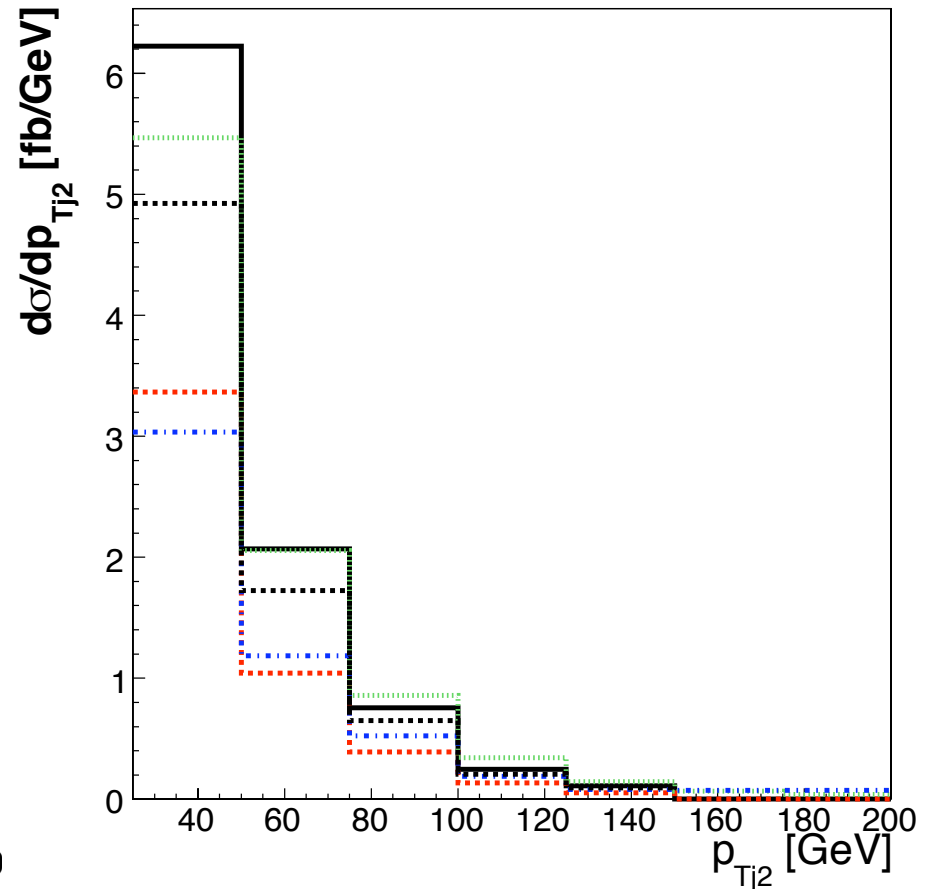
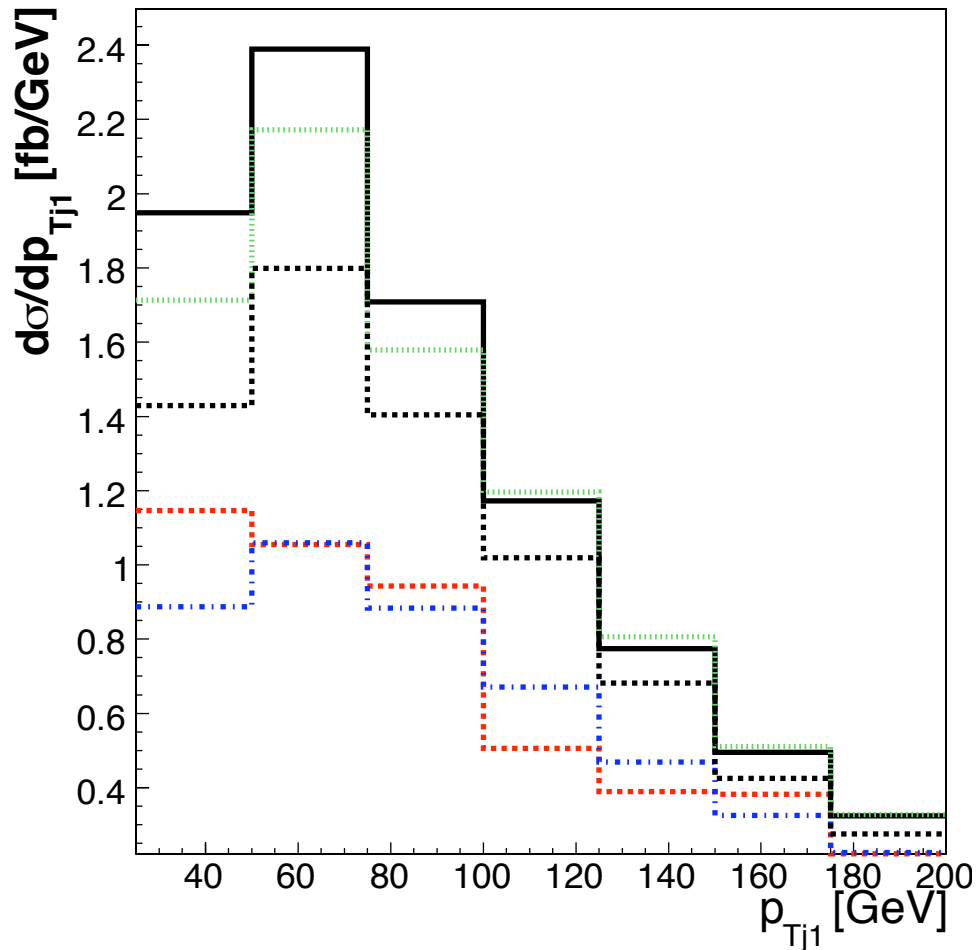
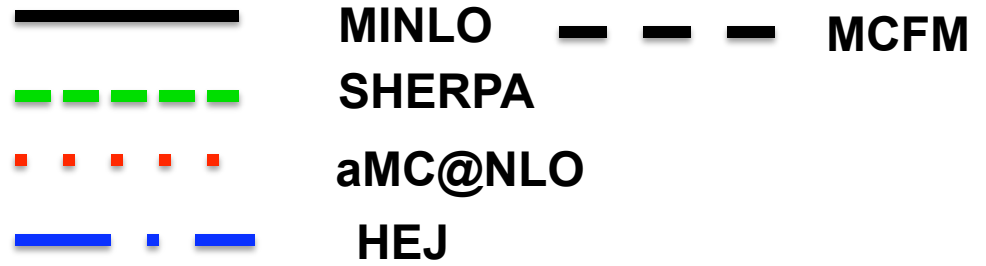
Distributions of ggF+2j **BEFORE**
VBF topological cuts



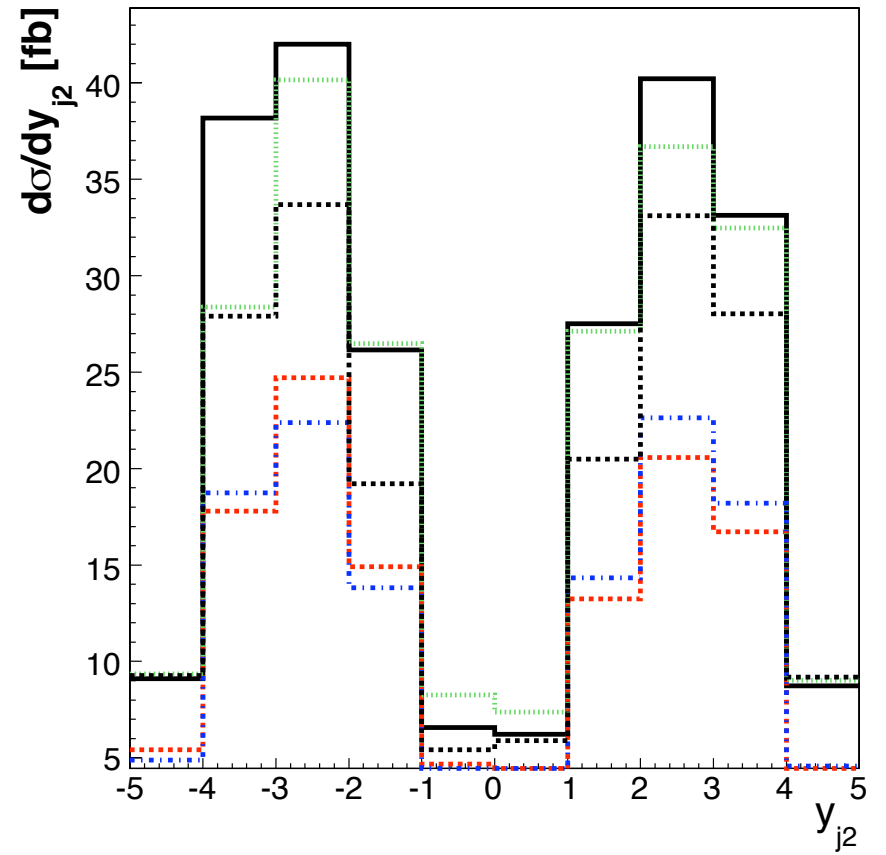
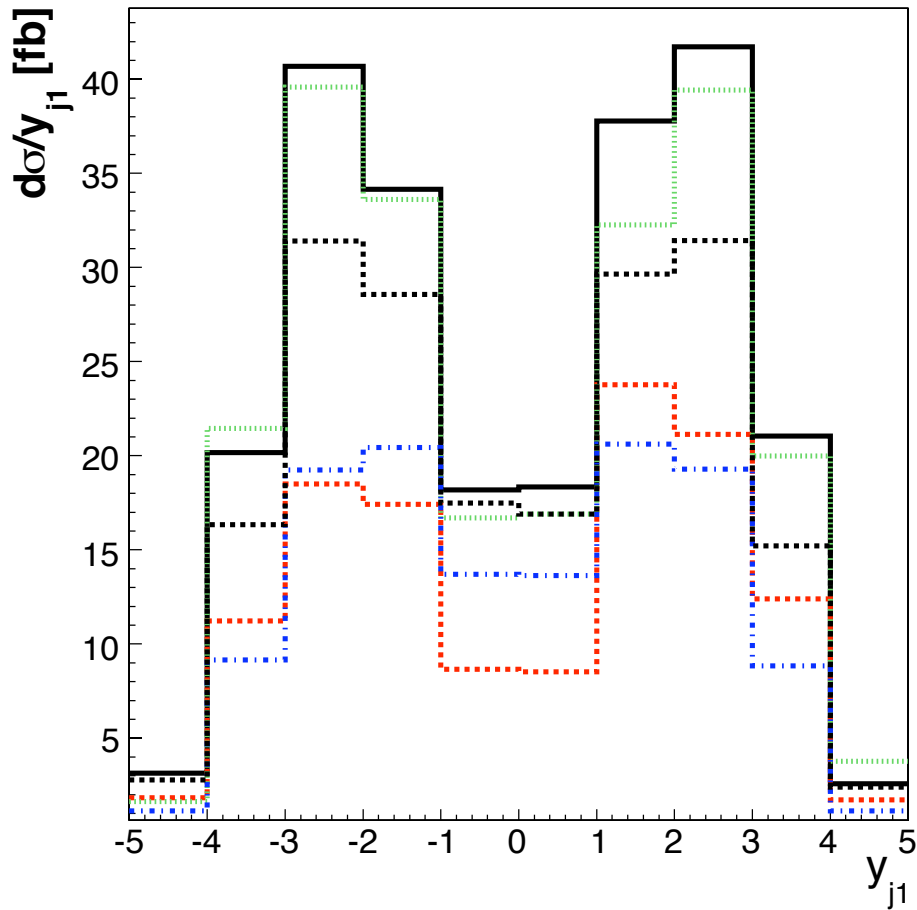
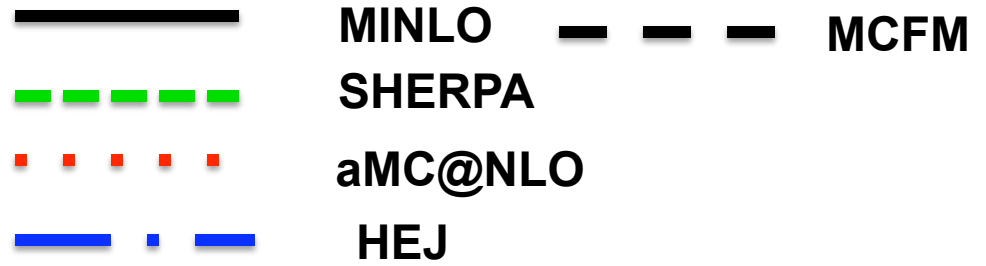
Distributions of ggF+2j **BEFORE**
VBF topological cuts



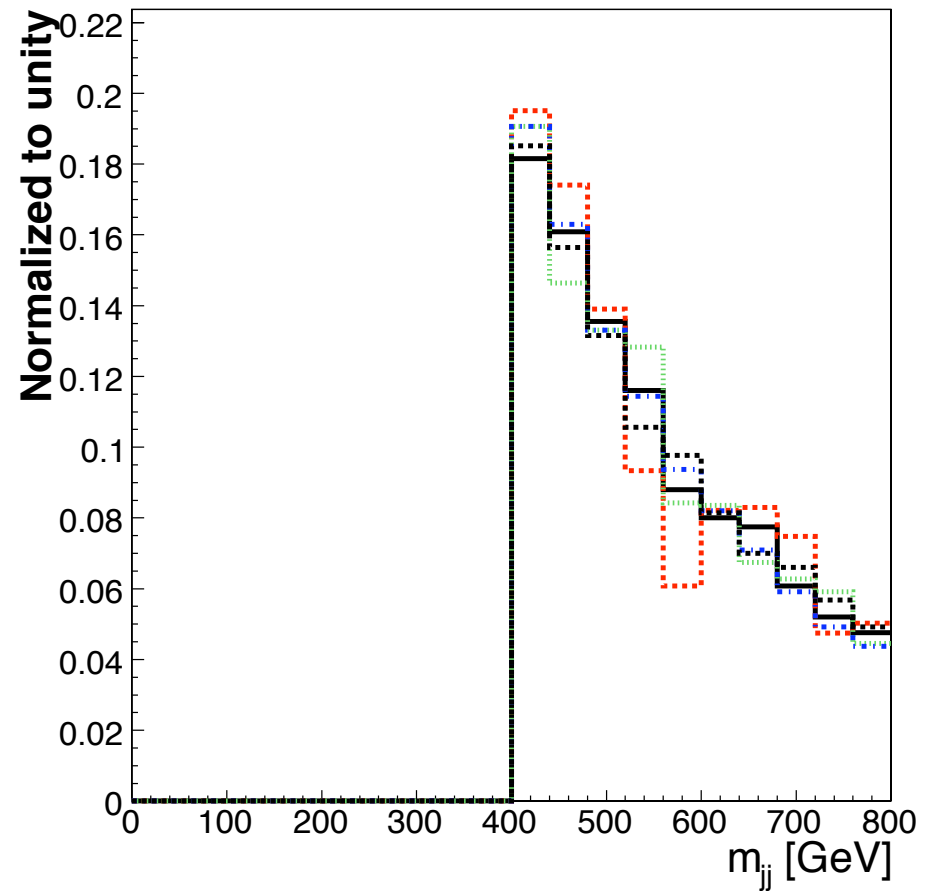
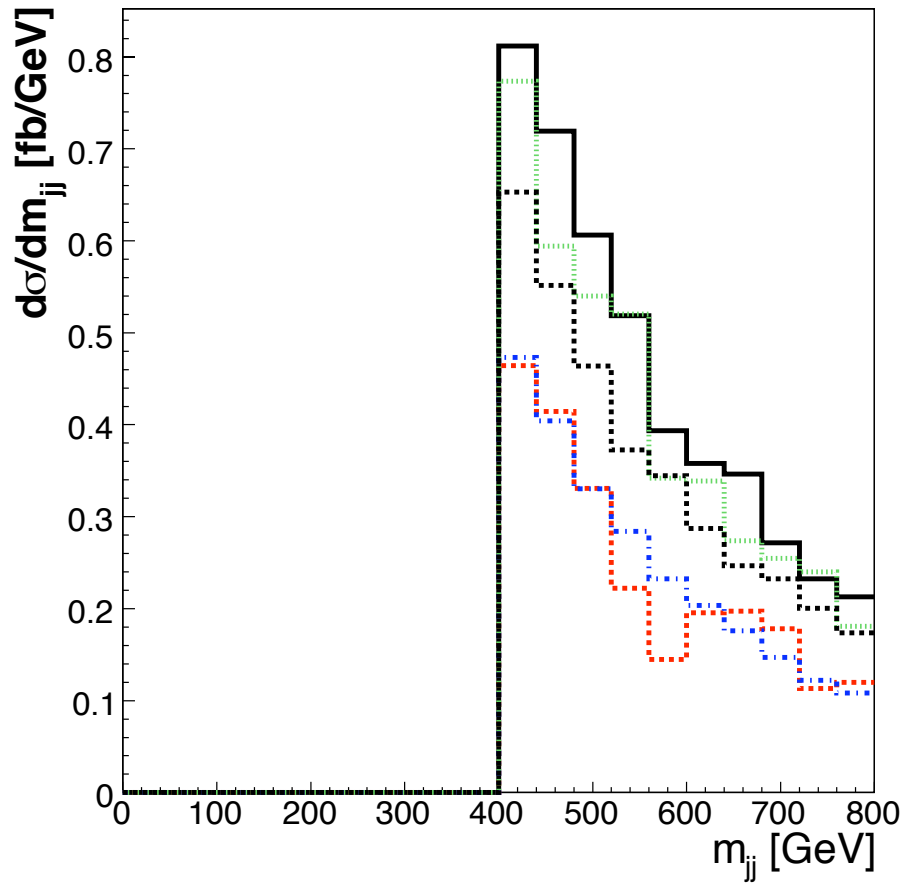
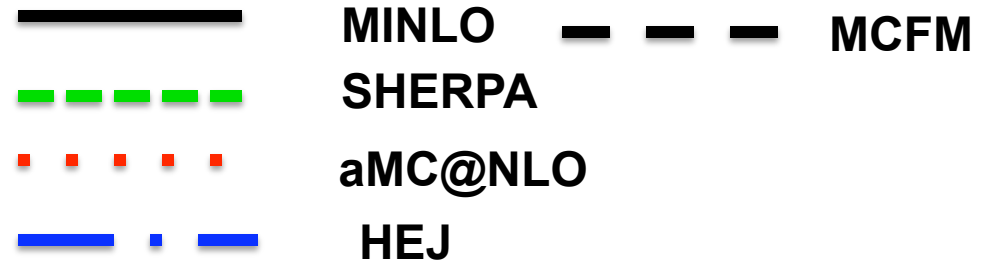
Distributions of ggF+2j
AFTER VBF topological cuts



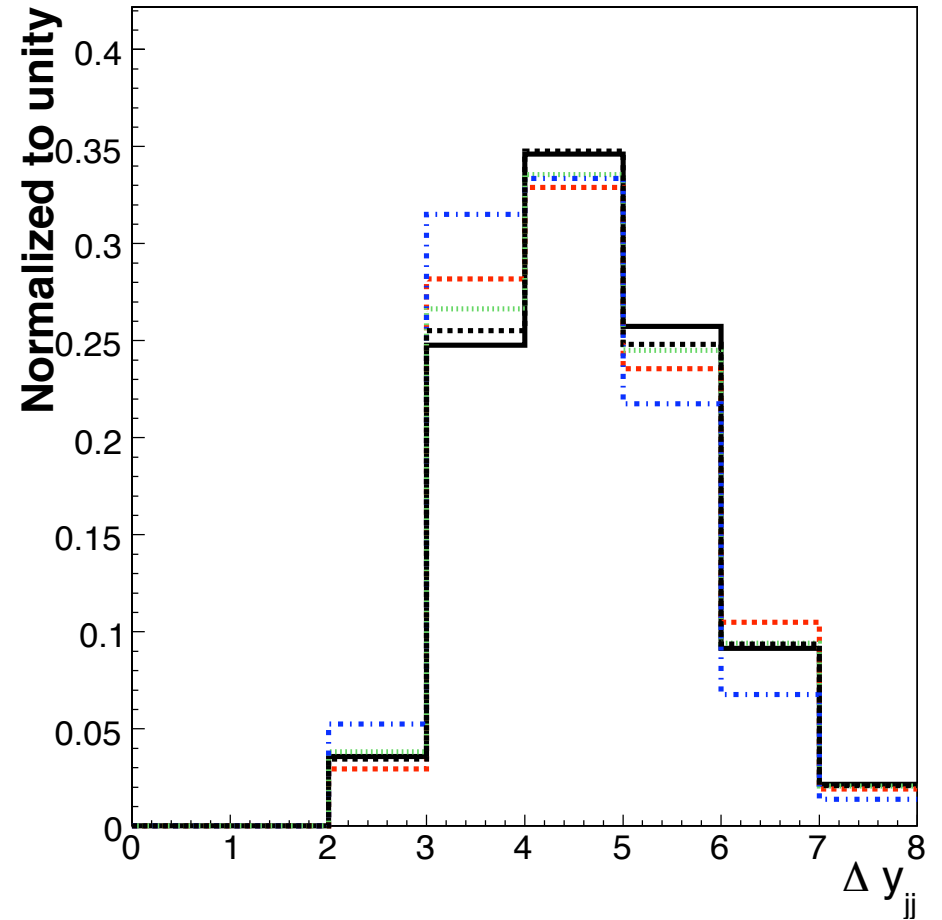
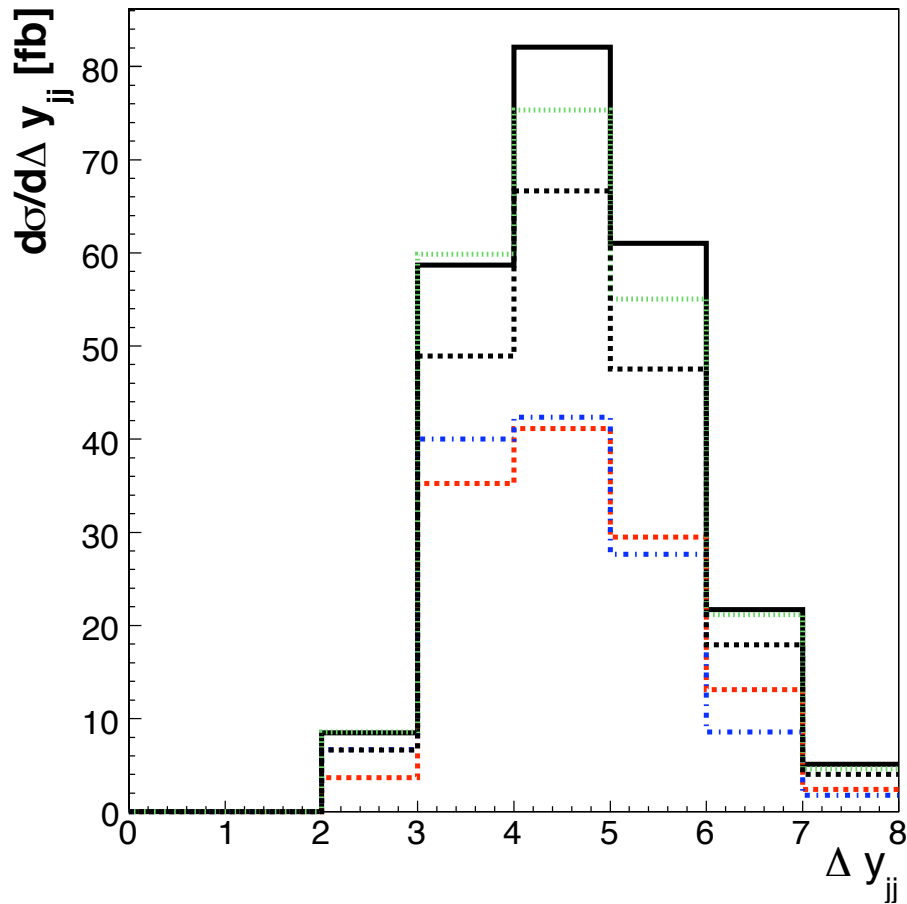
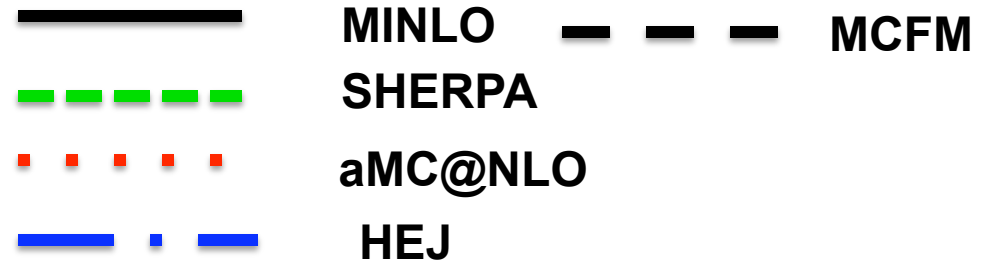
Distributions of ggF+2j
AFTER VBF topological cuts



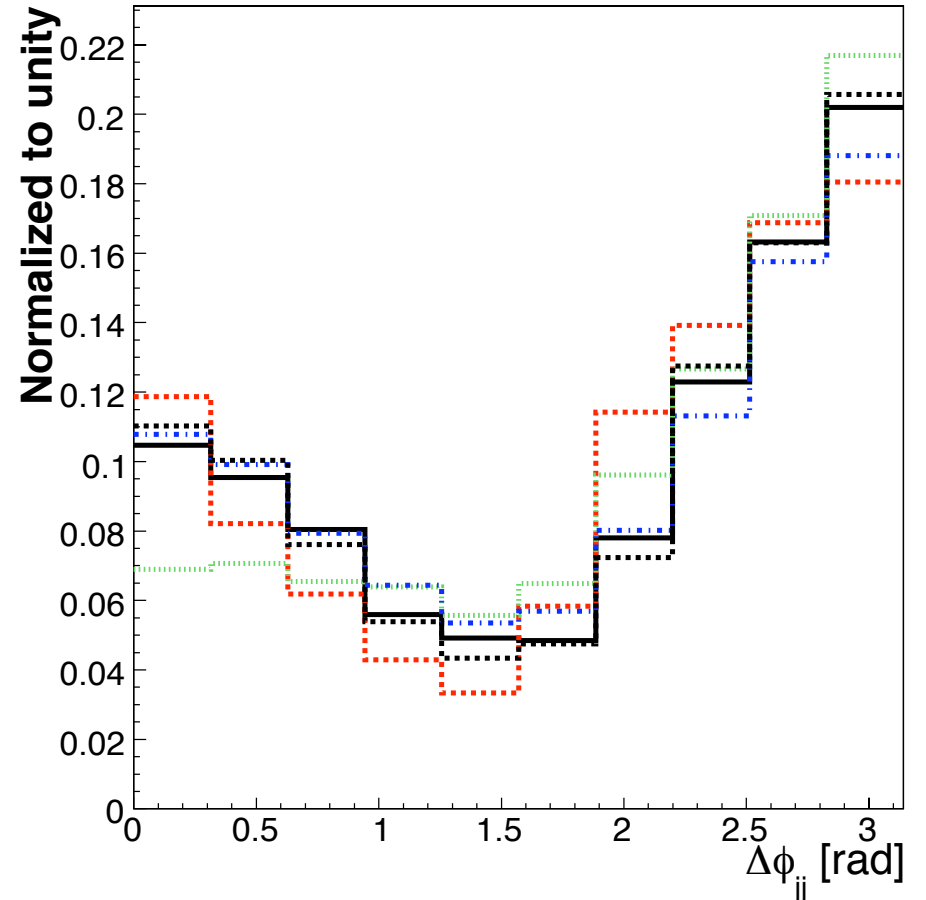
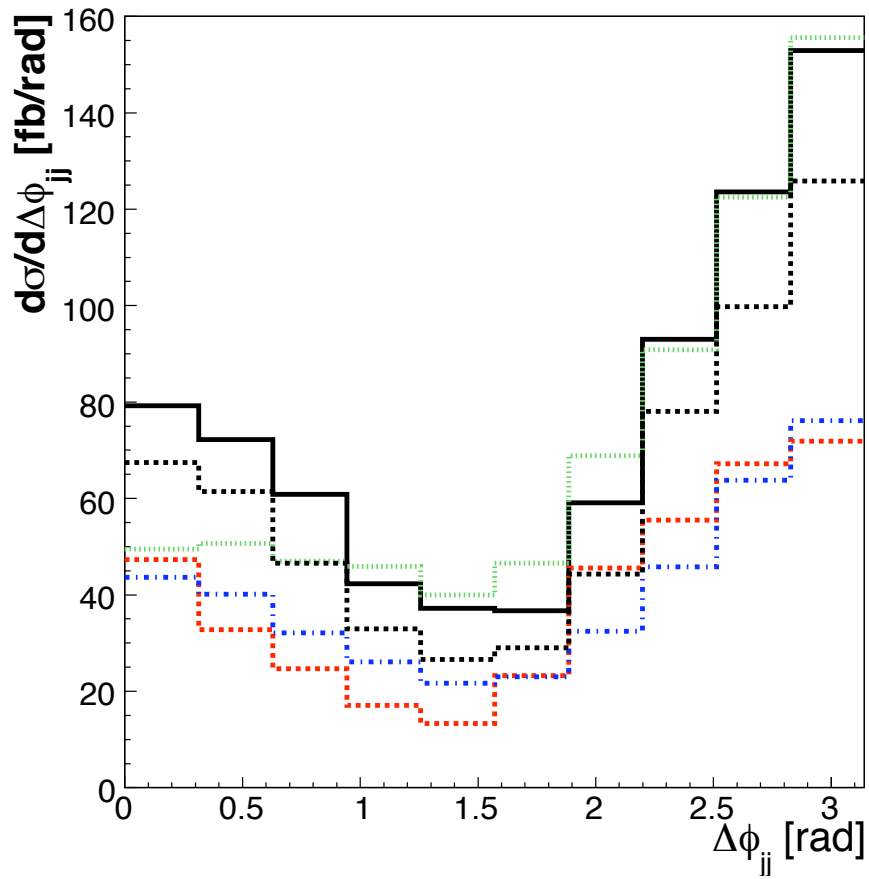
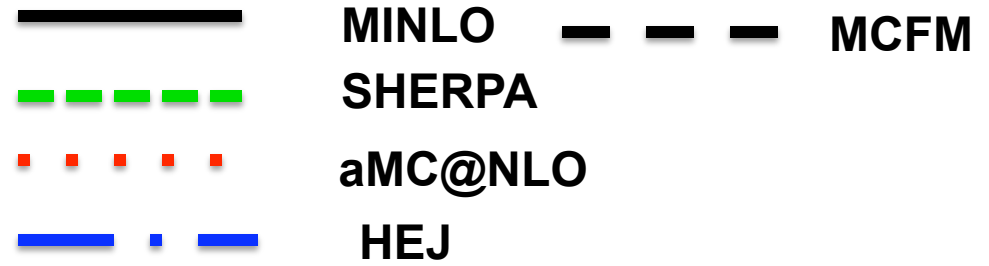
Distributions of ggF+2j
AFTER VBF topological cuts



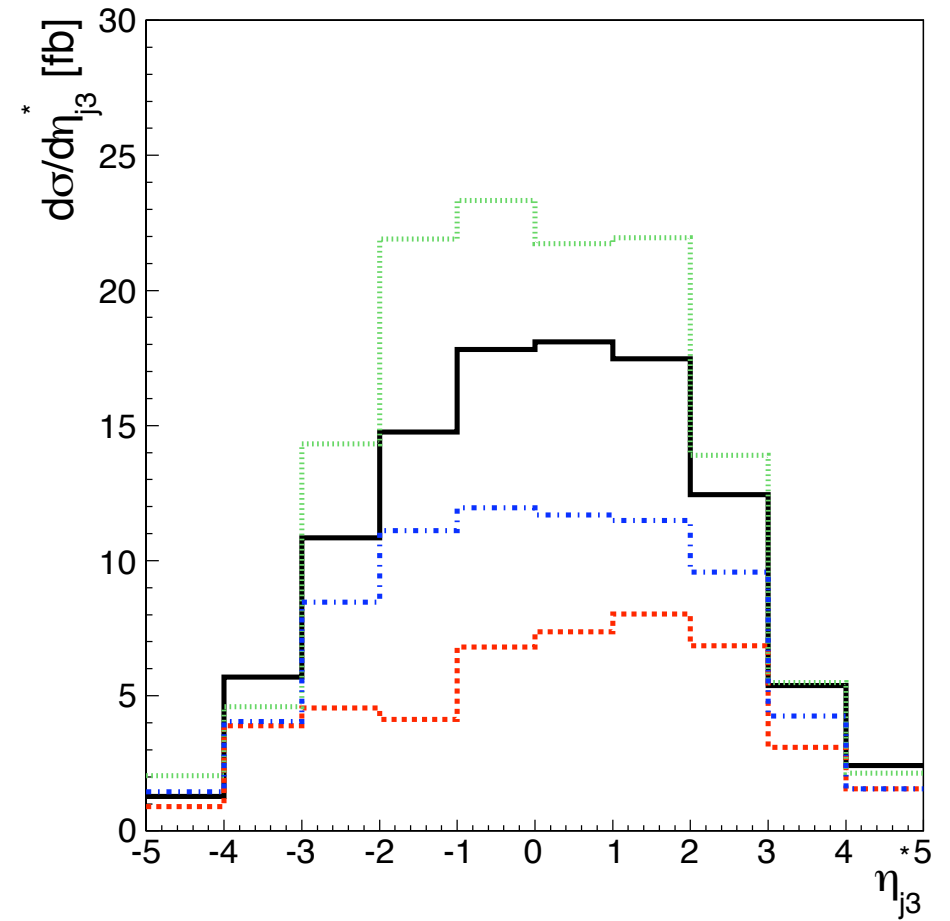
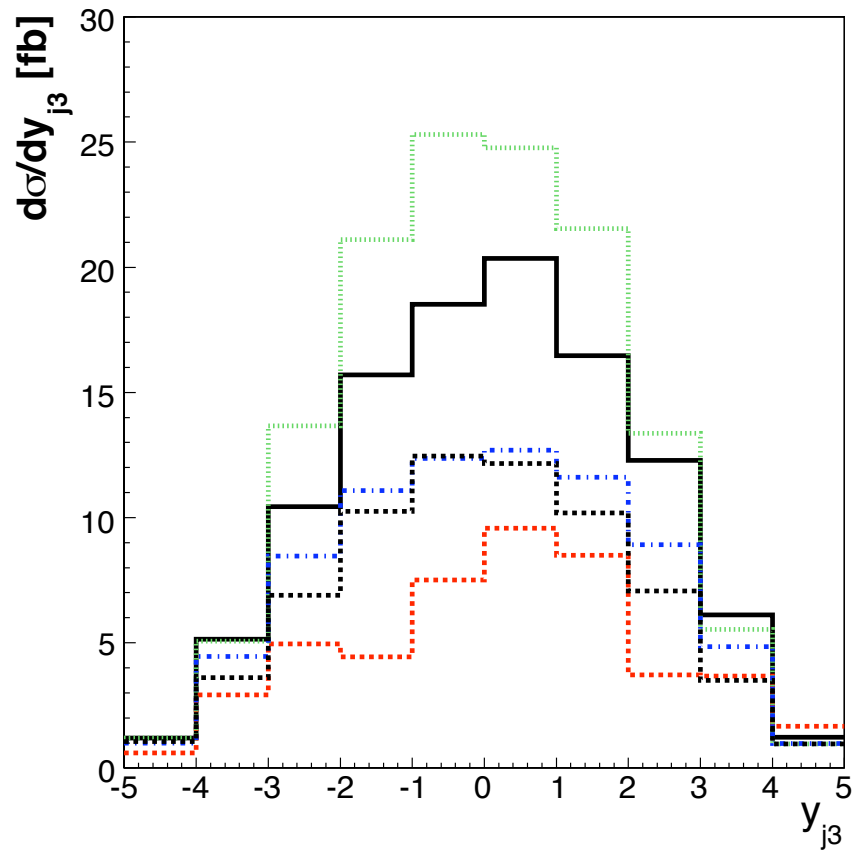
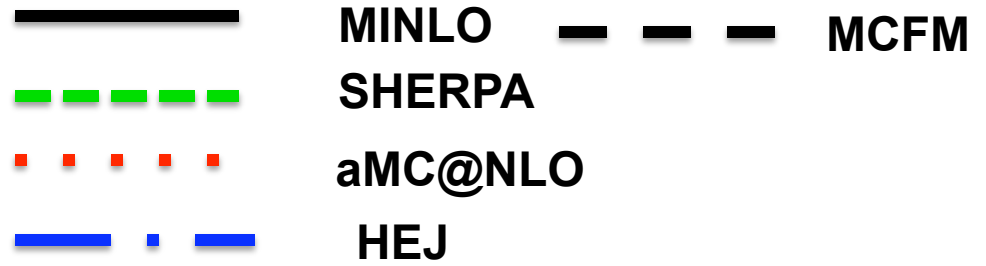
Distributions of ggF+2j
AFTER VBF topological cuts



Distributions of ggF+2j **AFTER**
VBF topological cuts



Distributions of ggF+2j **AFTER**
VBF topological cuts



Integral BEFORE VBF cuts

HEJ 2202.7

MINLO 2408.96

aMC@NLO 1653.46

SHERPA 2380.81

MCFM 1730.91

Efficiency of VBF cuts

HEJ 0.0576549

MINLO 0.0983967

aMC@NLO 0.0756448

SHERPA 0.0943141

MCFM 0.11072

Integral AFTER VBF cuts

HEJ 126.997

MINLO 237.034

aMC@NLO 125.076

SHERPA 224.544

MCFM 191.646