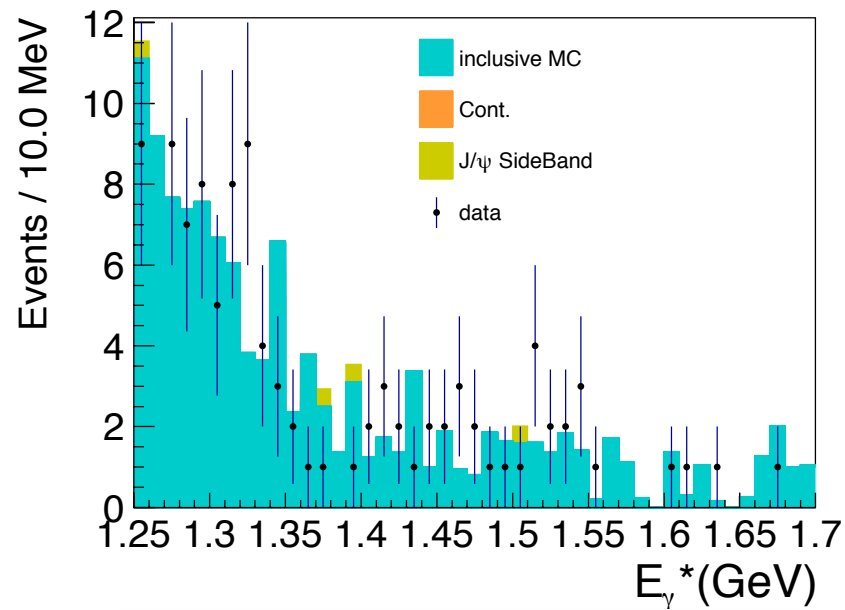


update on gamma invisible

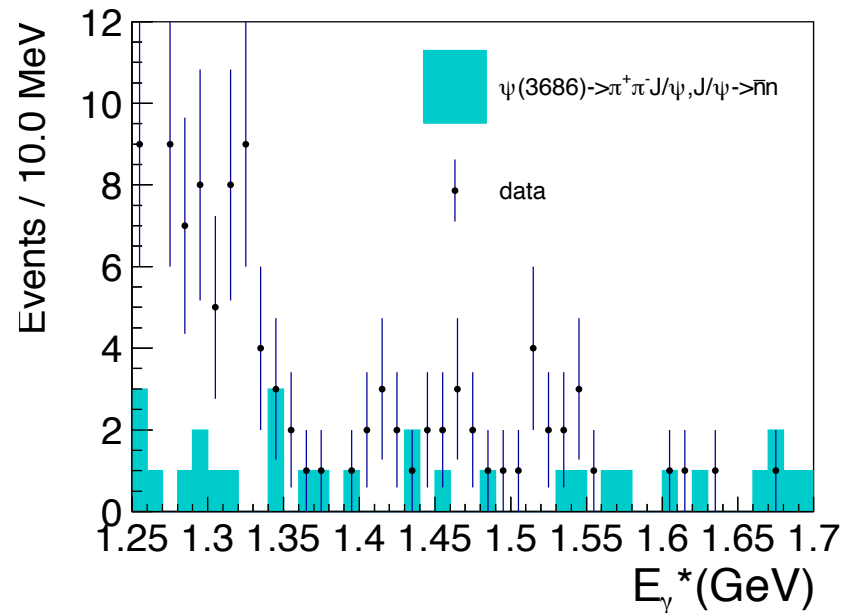
Shi Xiaodong, Peng Haiping
State Key Laboratory of Particle Detection and Electronics
USTC

2017.10.23

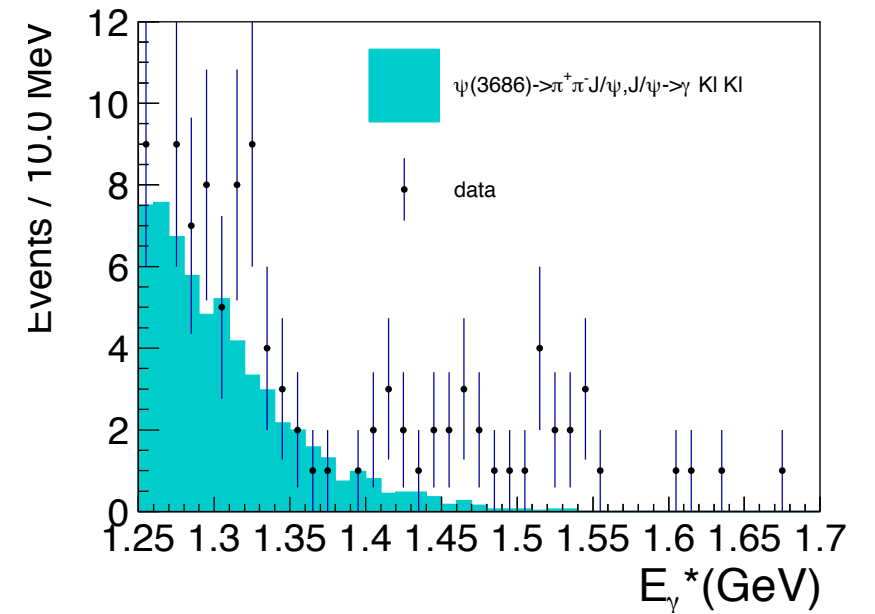
E_{signal} in [1.25,1.75] GeV



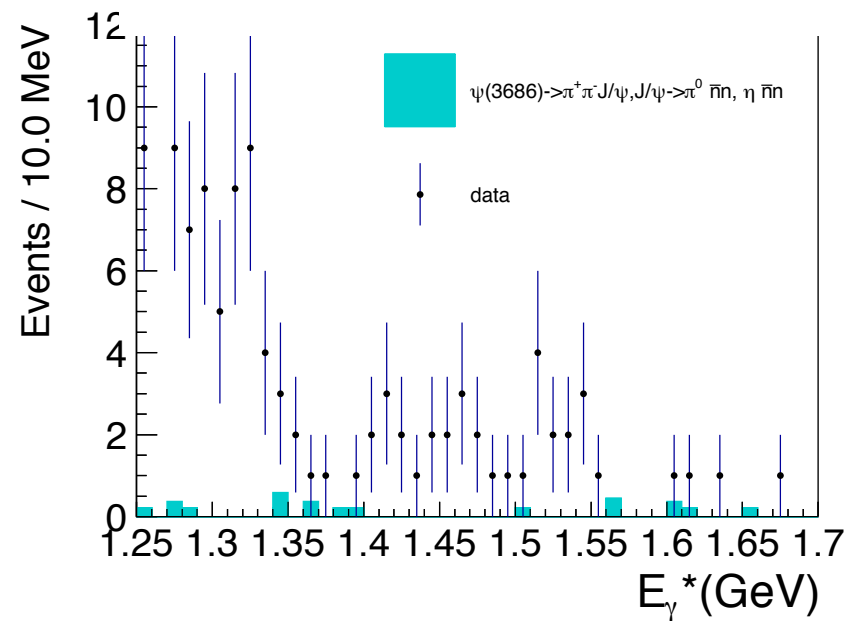
(a) $J/\psi \rightarrow \text{anything}$



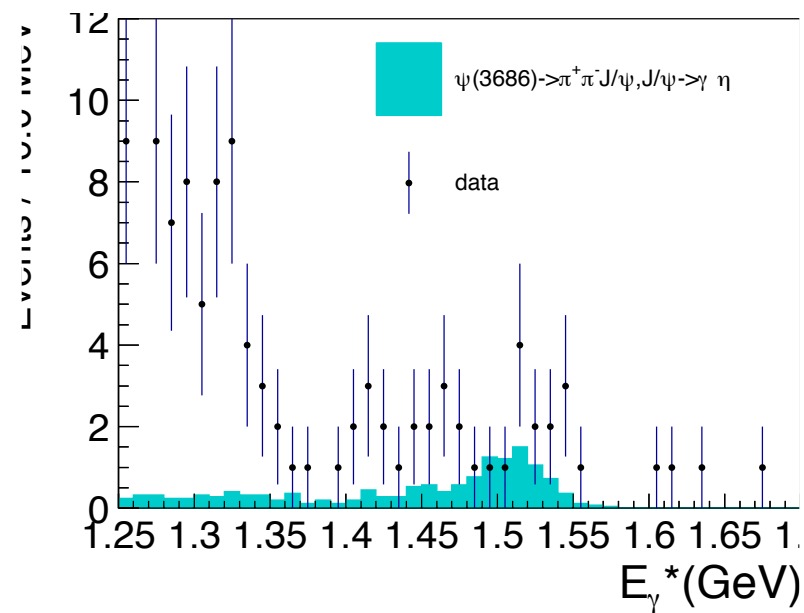
(b) $J/\psi \rightarrow \gamma \bar{n}n$



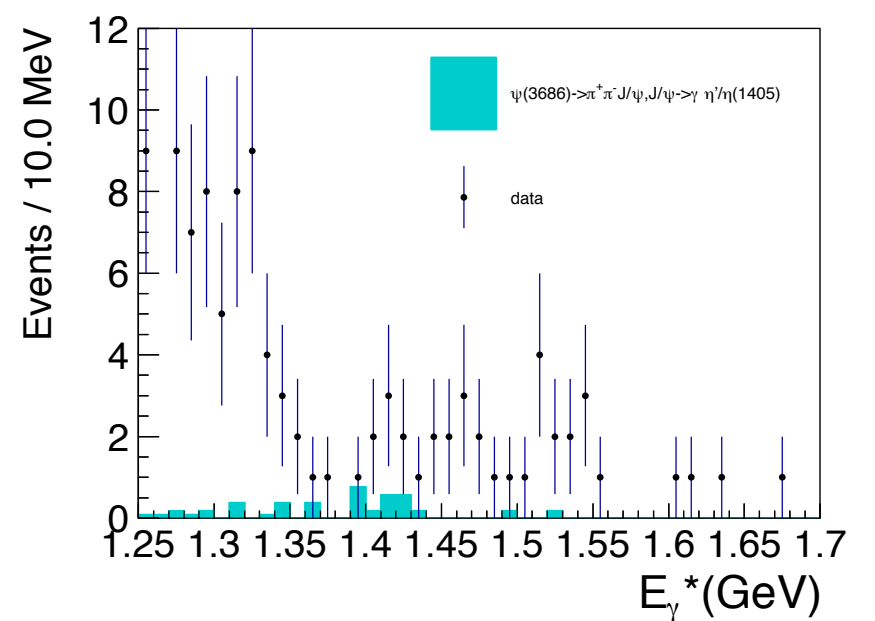
(c) $J/\psi \rightarrow \gamma K l K l$



(d) $J/\psi \rightarrow \pi^0 \bar{n}n, \eta \bar{n}n$

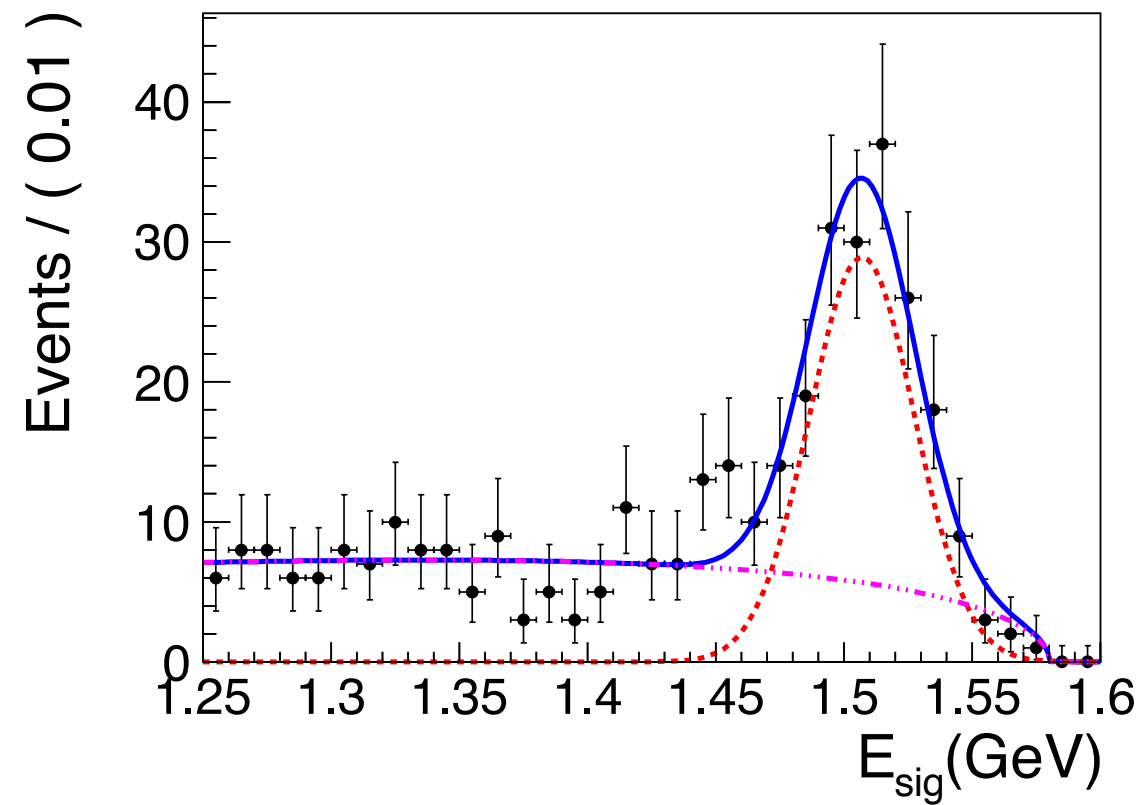


(e) $J/\psi \rightarrow \gamma \eta$

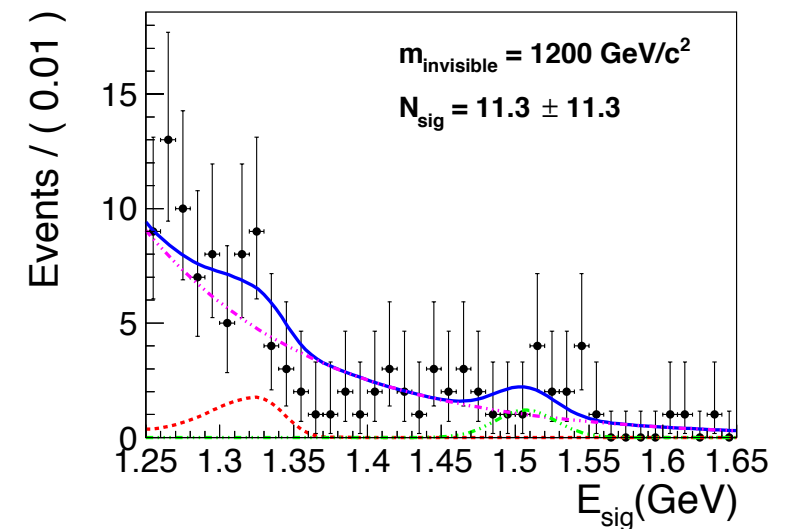
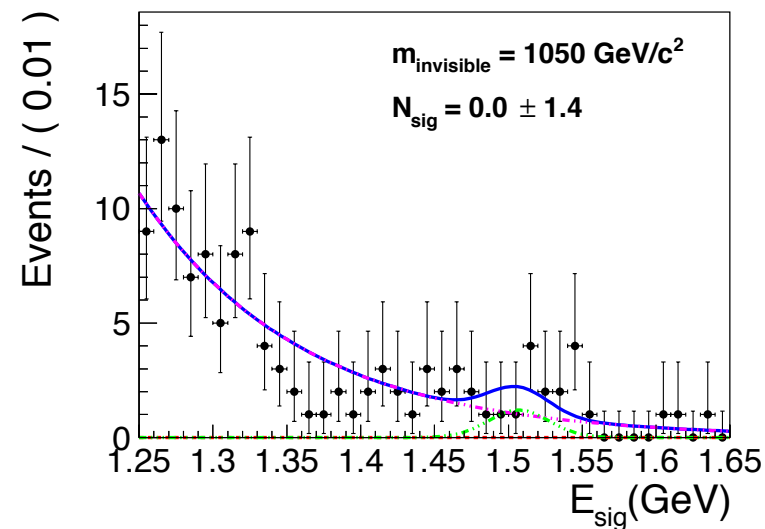
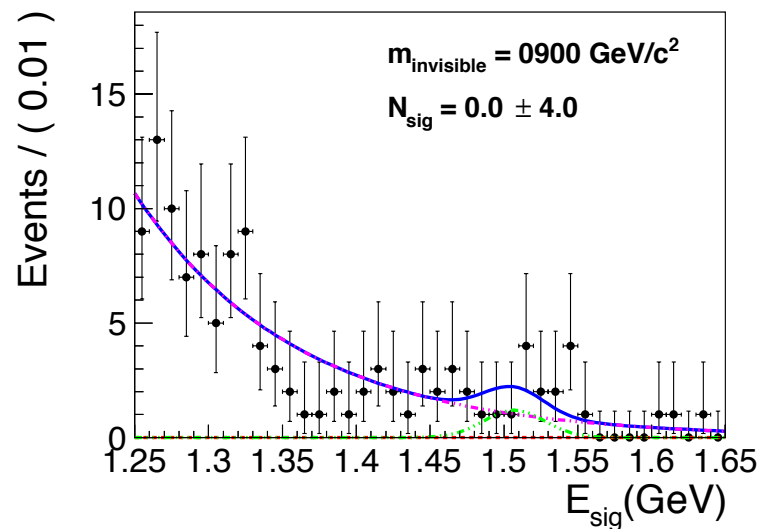
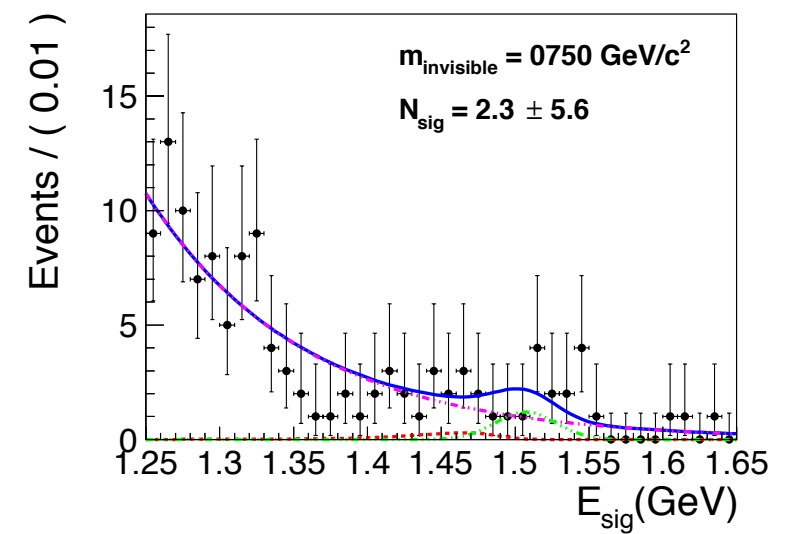
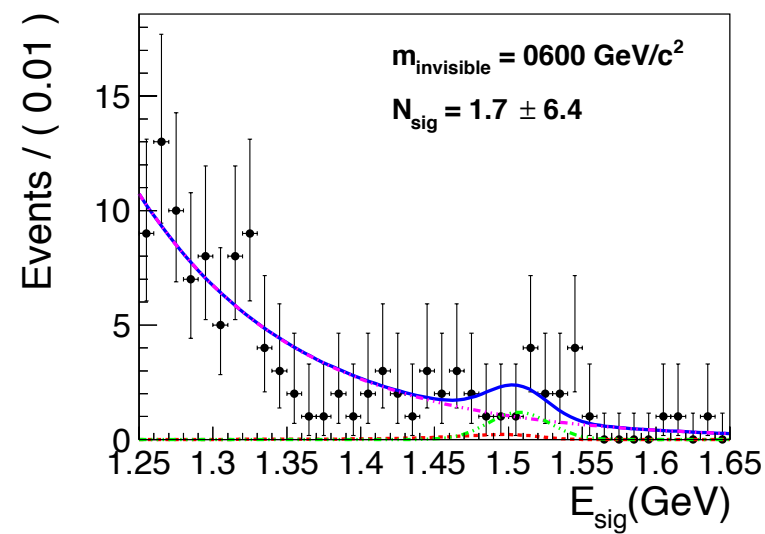
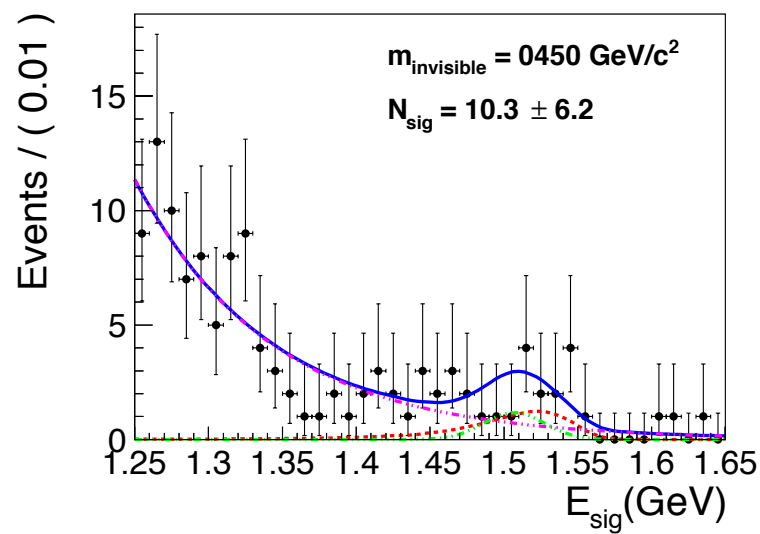
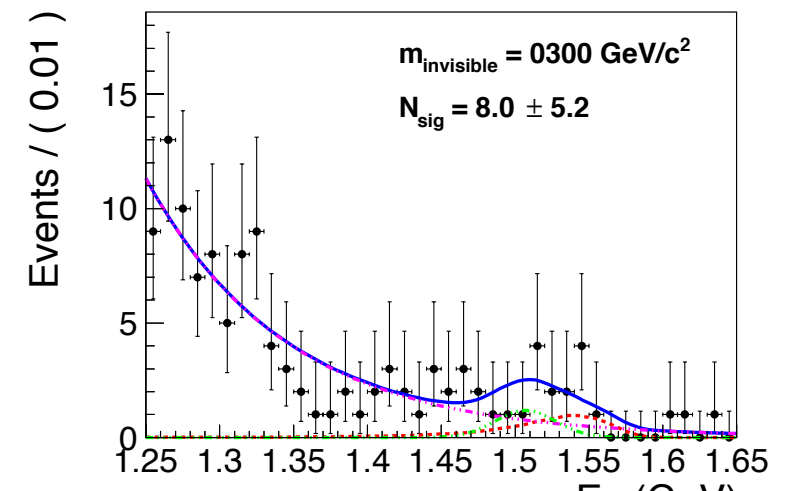
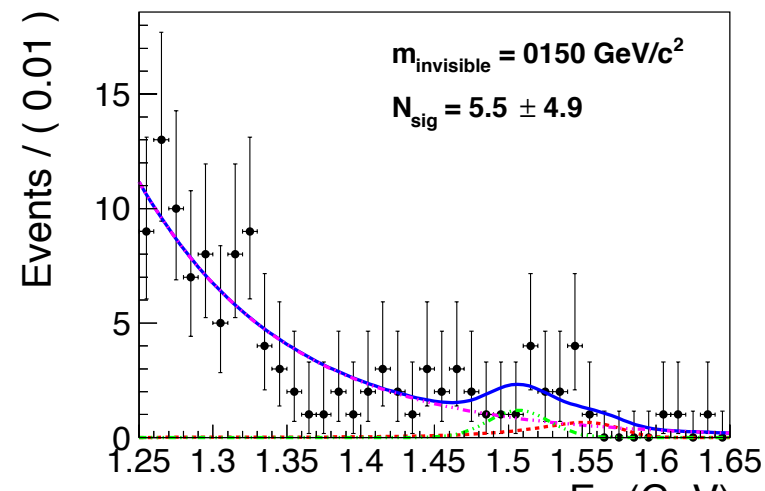
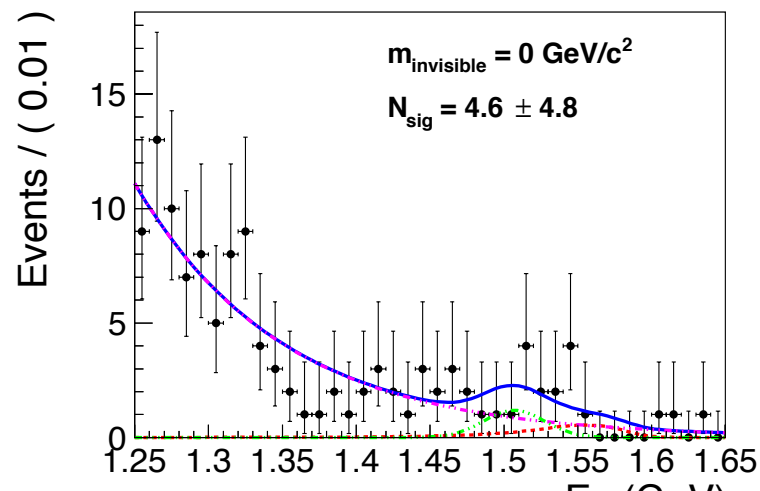


(f) $J/\psi \rightarrow \gamma \eta' / \eta(1405)$

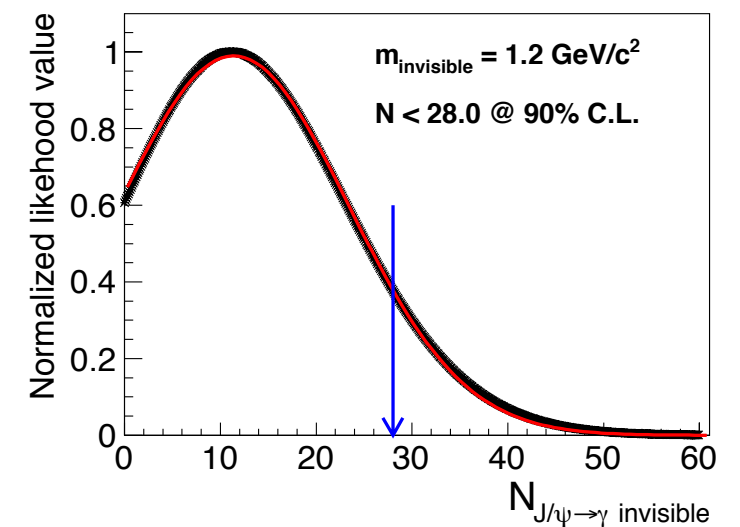
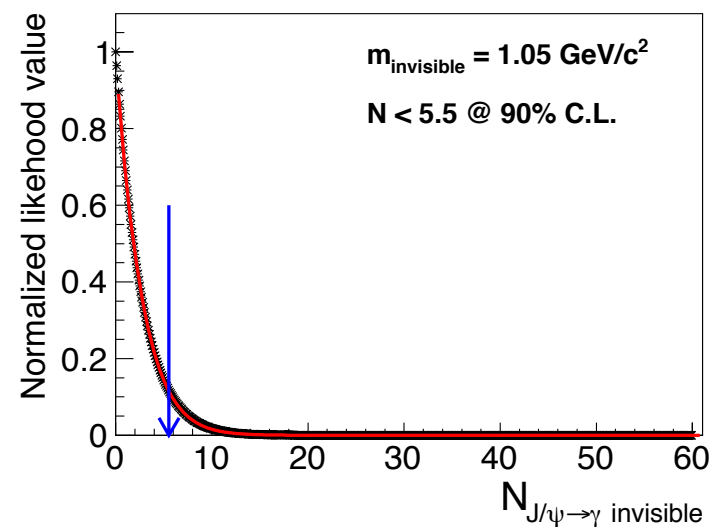
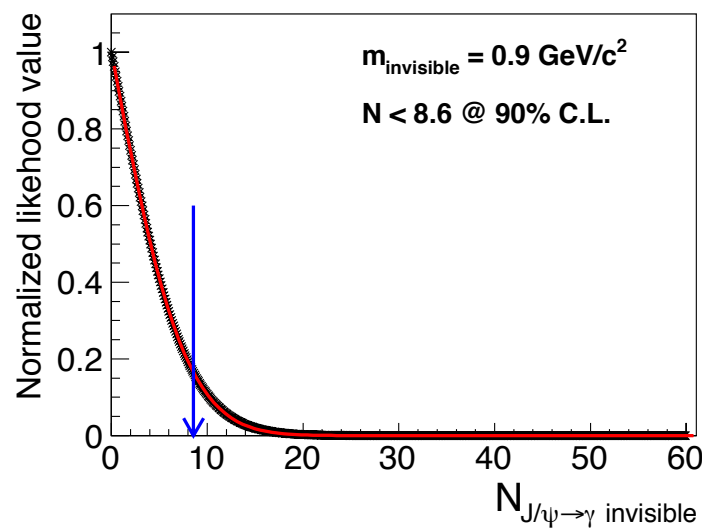
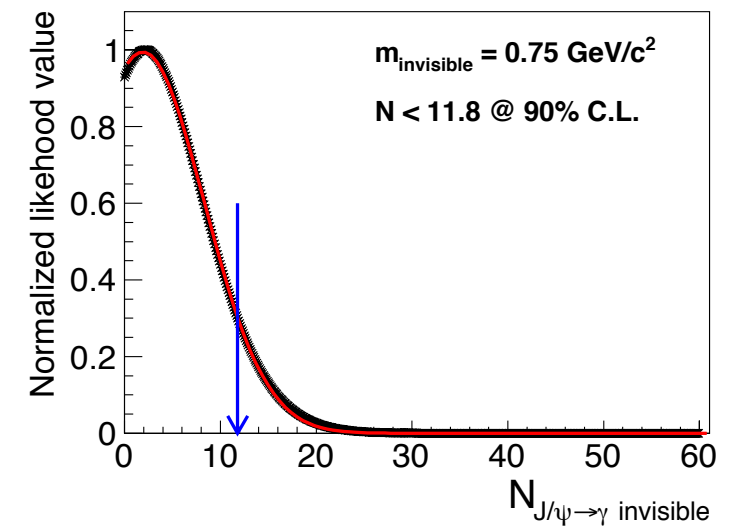
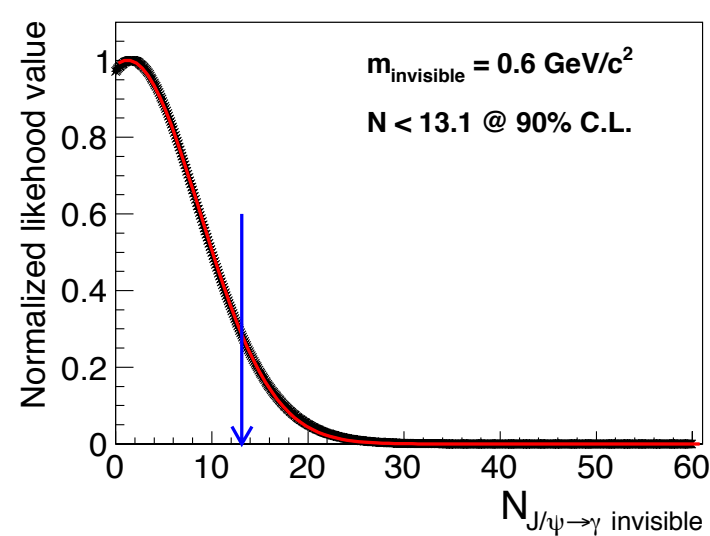
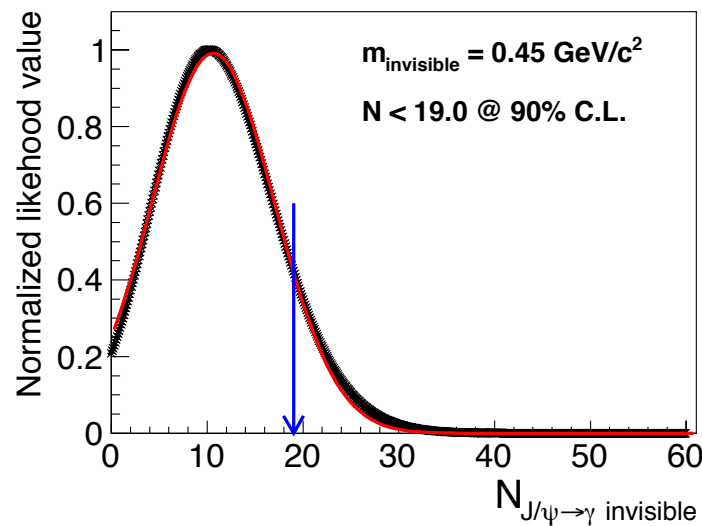
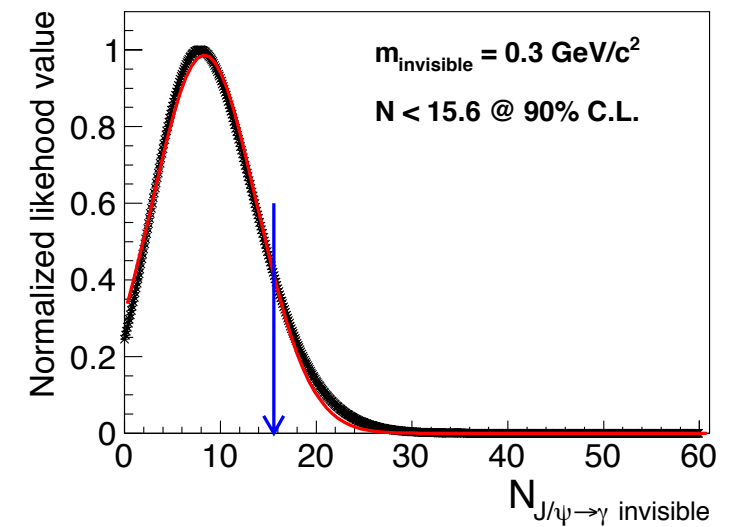
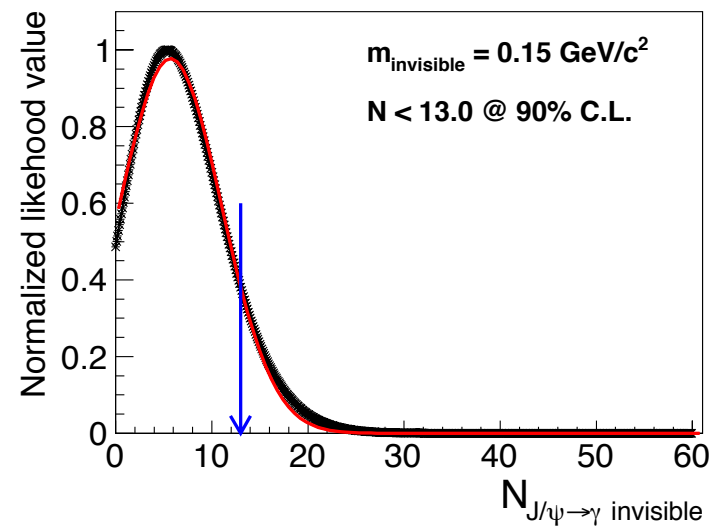
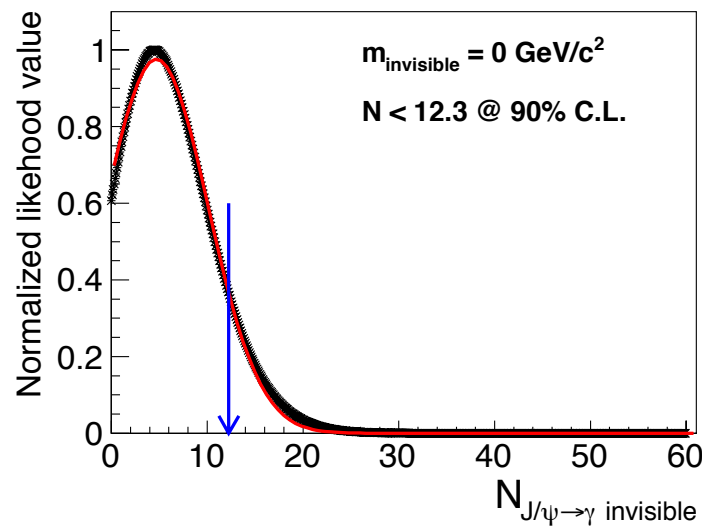
extract peak bkg parameter



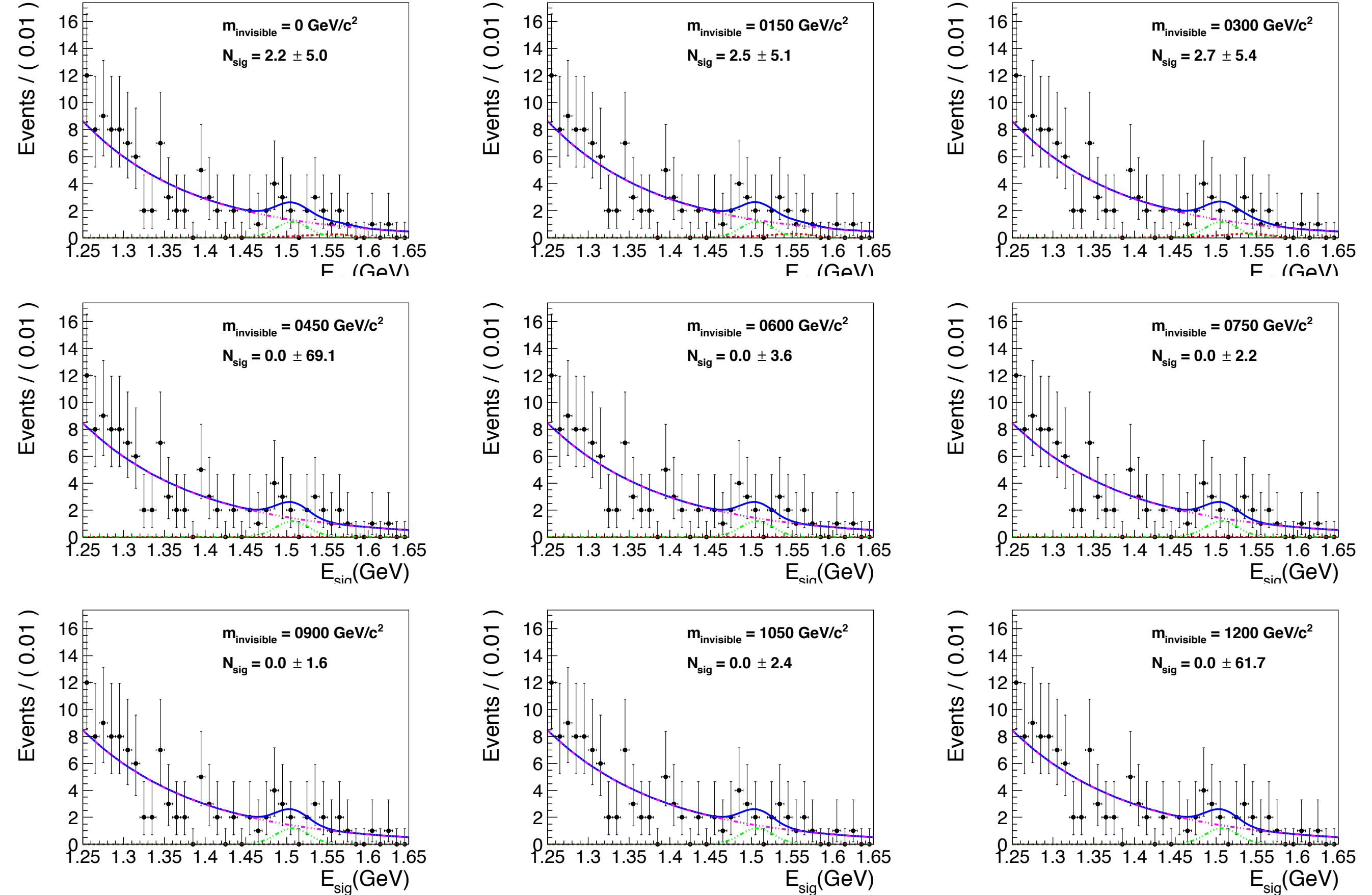
fit result @09data-set



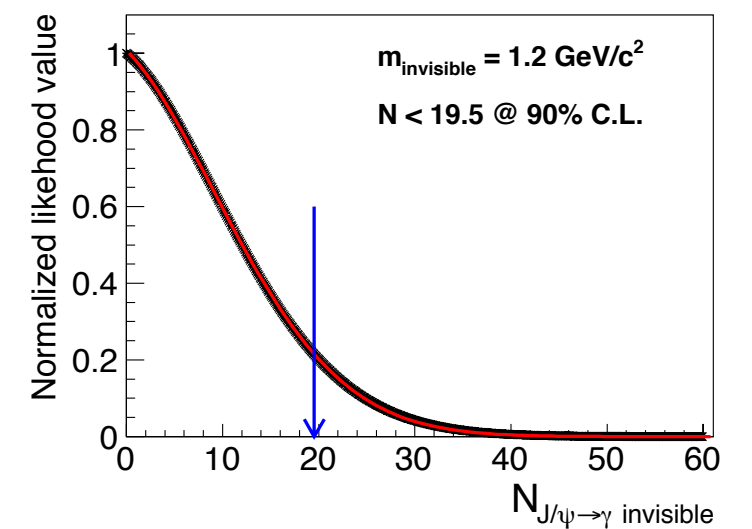
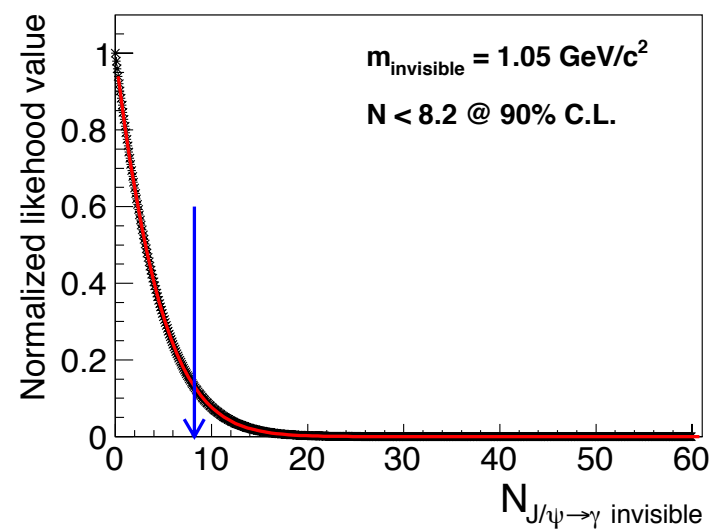
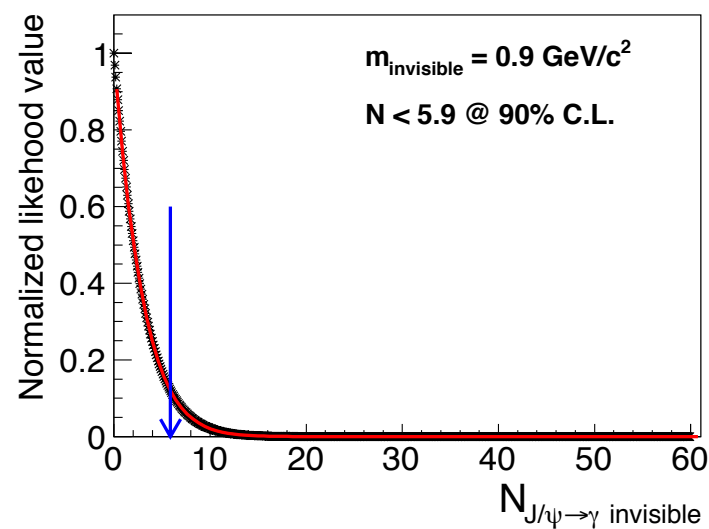
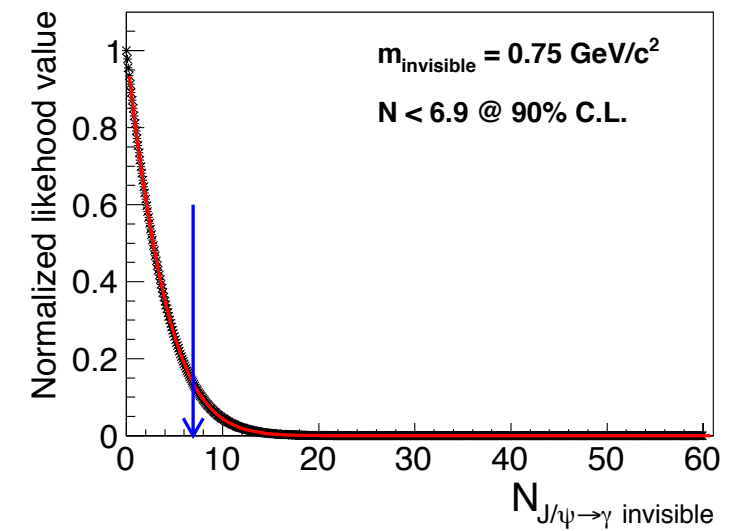
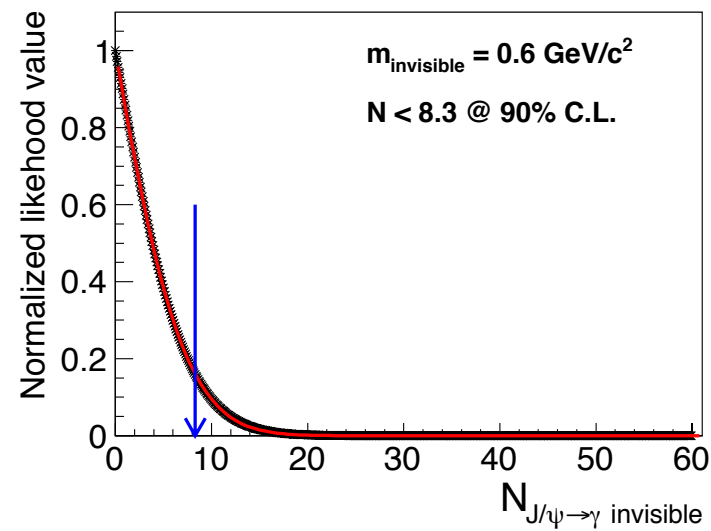
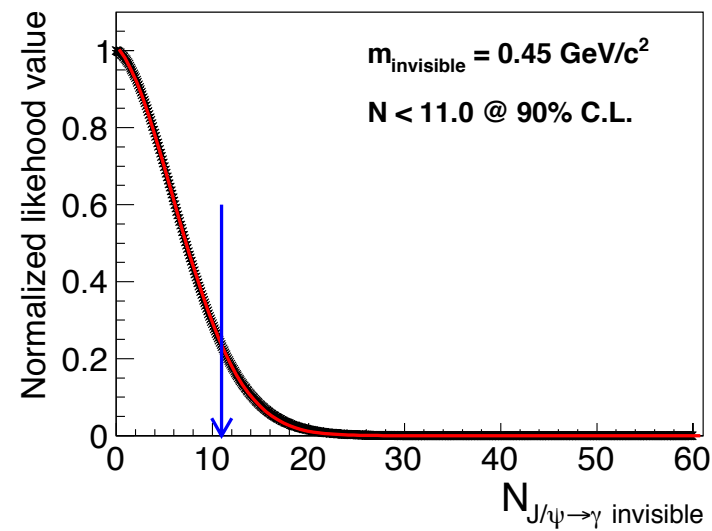
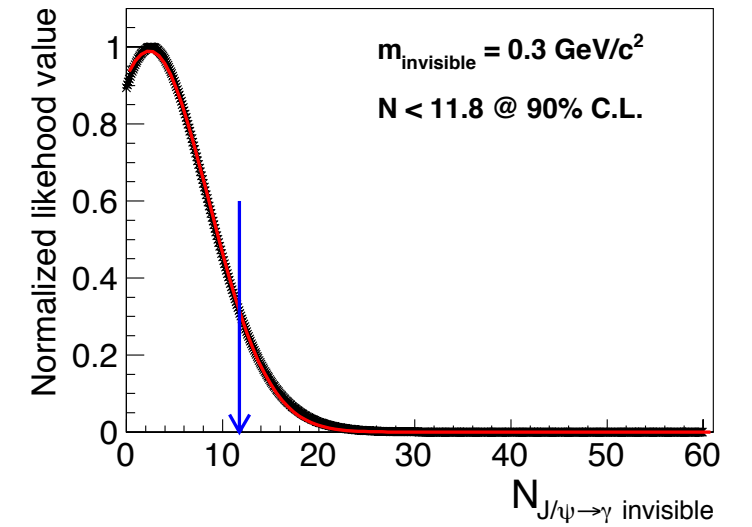
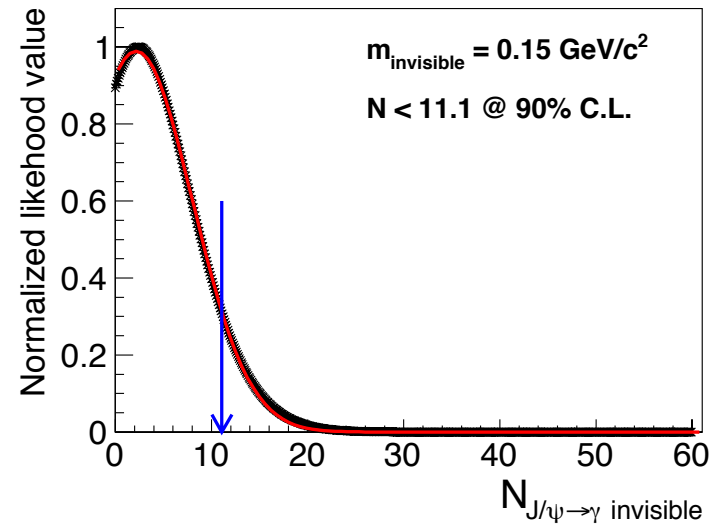
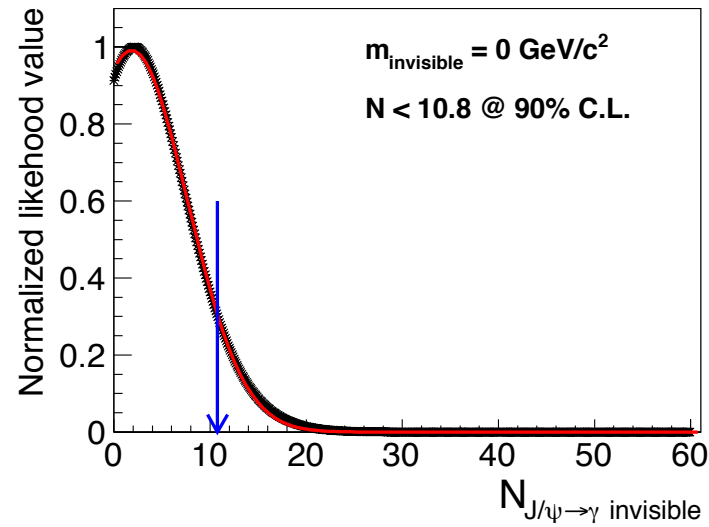
likelihood curve@09data-set



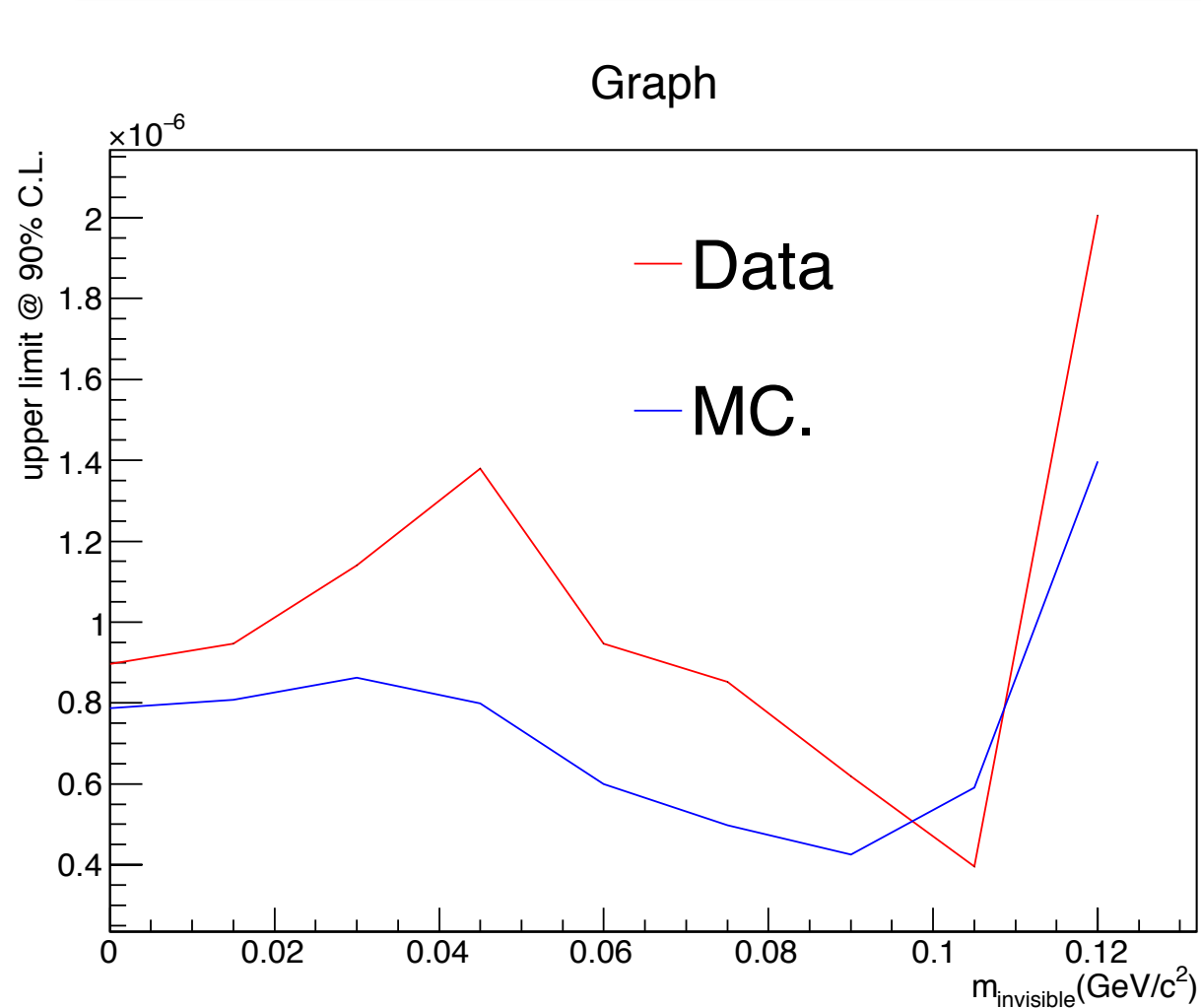
fit result @09 MC-set



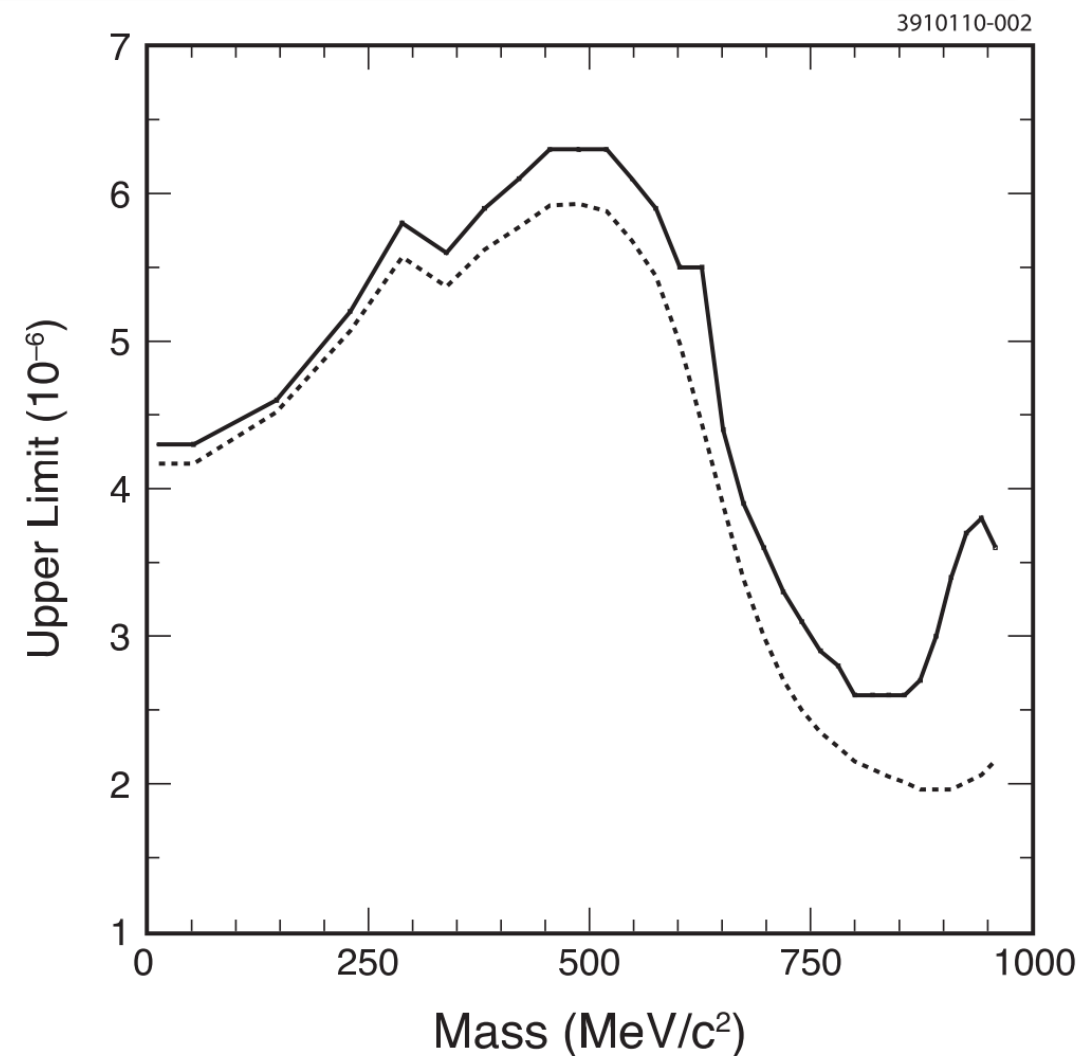
likelihood curve@09MC-set



Upper limit @ 90% C.L.



106M psip(3686)



28M psip(3686)

Next to do

- Use 12MC to predict 12data performance.
- Get systematic error.

Back-Up

