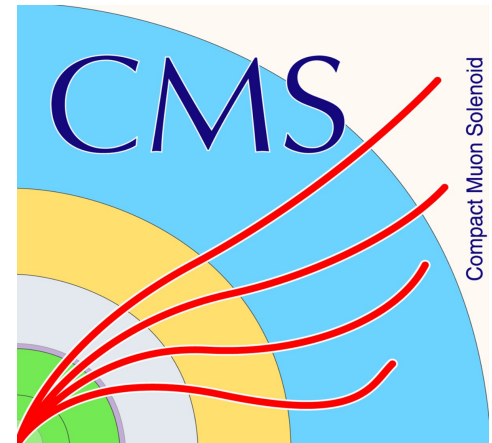


Mass regression model Inference directly on root file



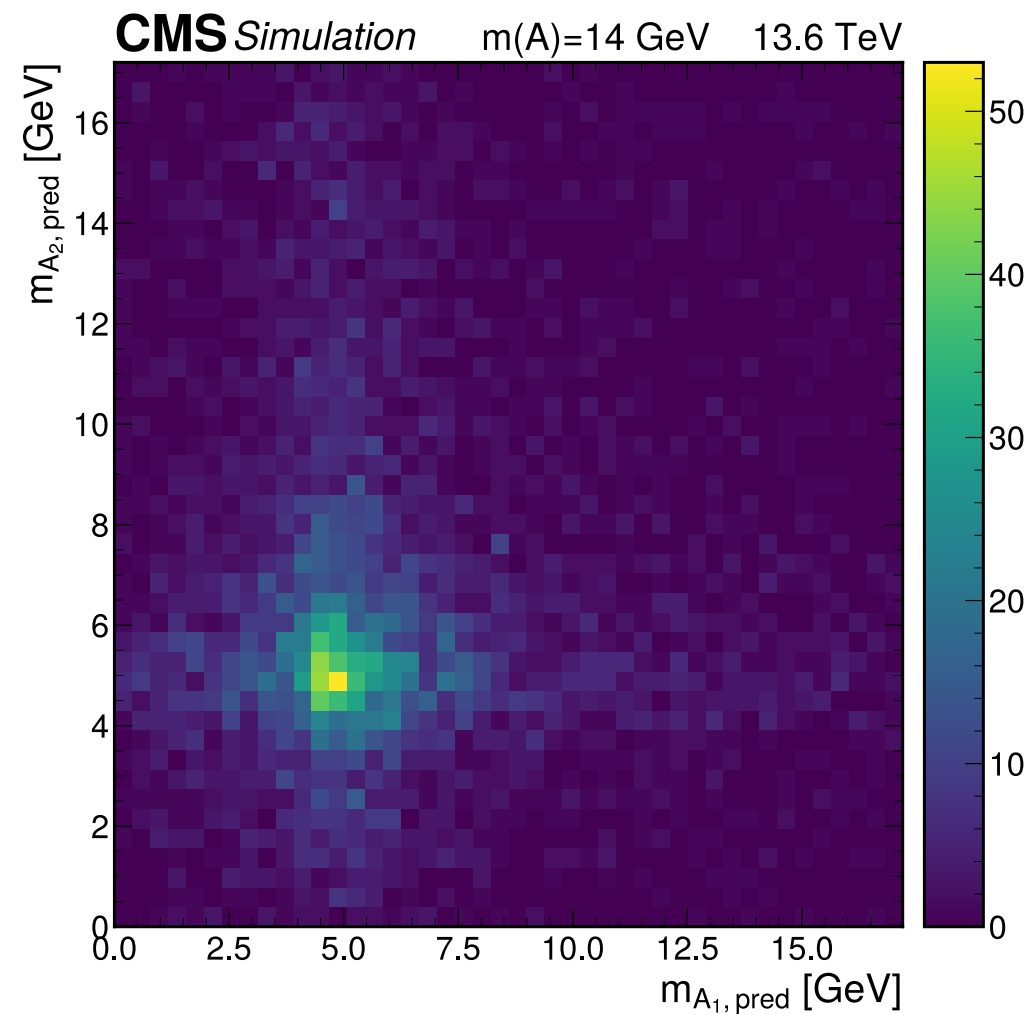
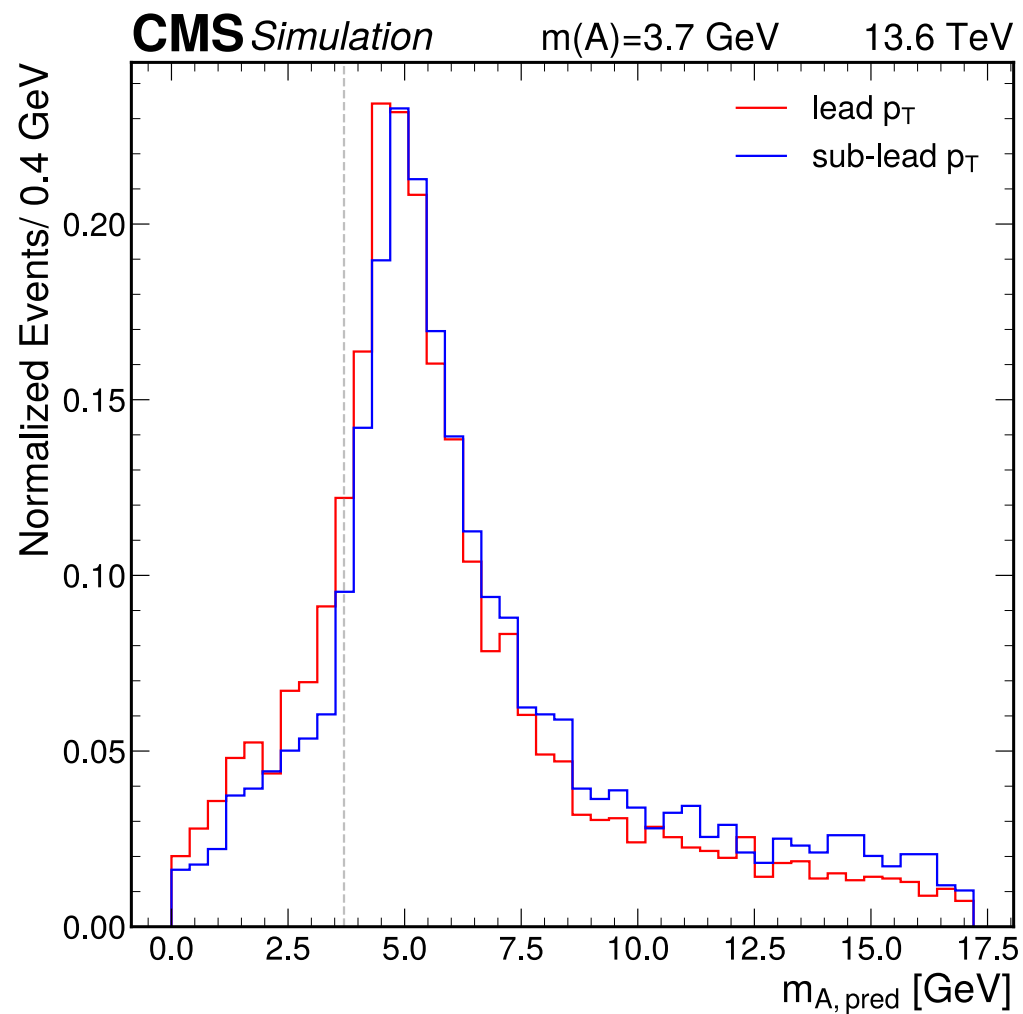
- Events with exactly 2 jets selected
- Inference directly ran on root file and two new column mass_A1(leading jet pT) and mass_A2 (sub-leading jet pT).

| mass_A1 | mass_A2 | JetpT |
|--------------|--------------|-------------|
| Predicted A1 | -9999.9999 | leading |
| -9999.9999 | Predicted A2 | sub-leading |

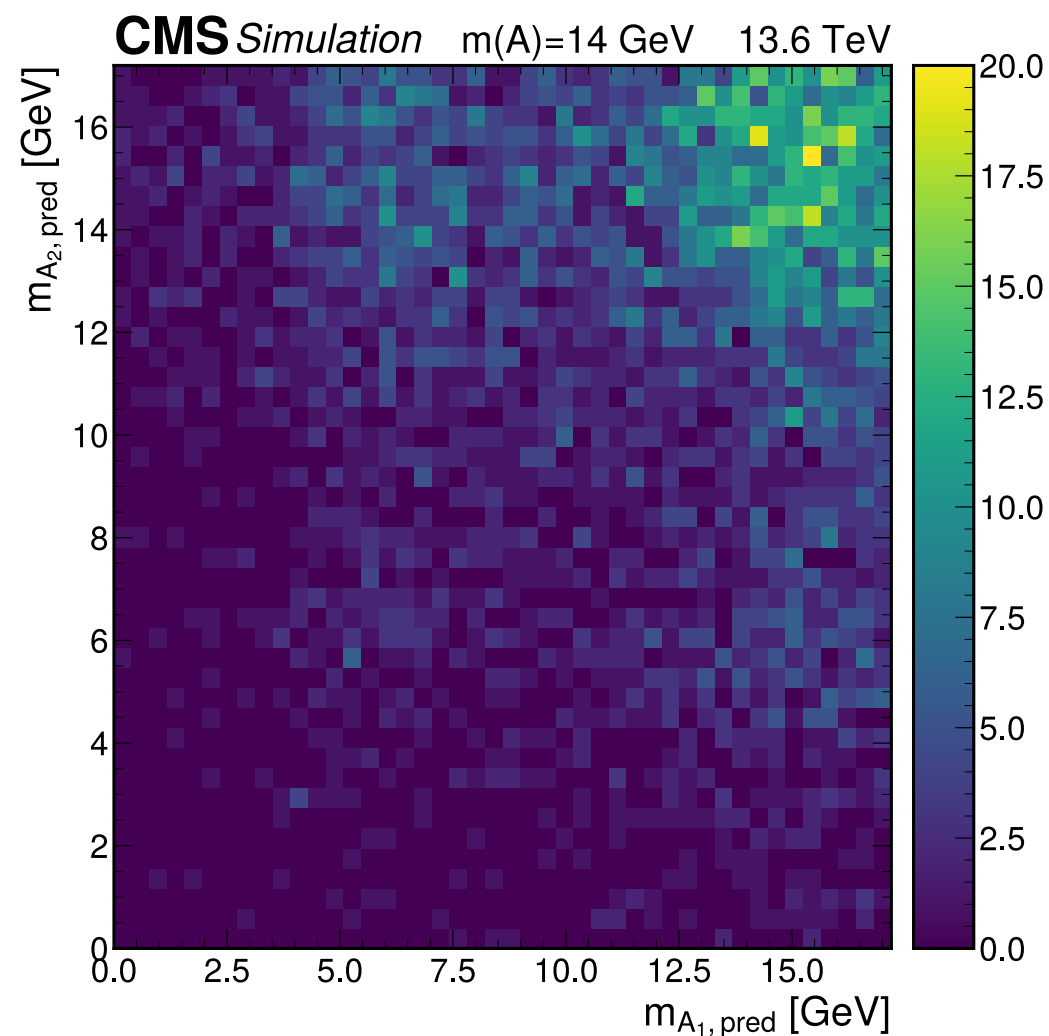
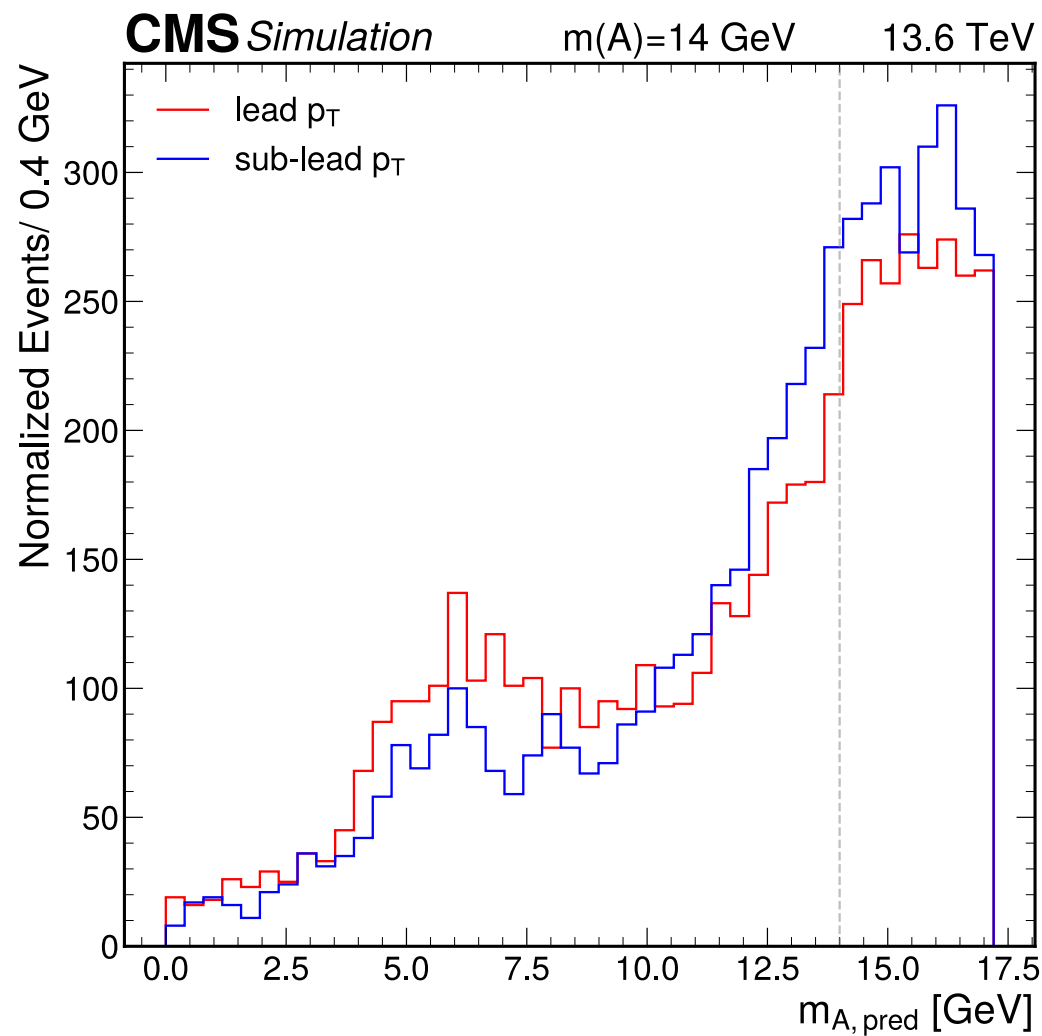
| mass_A1 | mass_A2 | JetpT |
|--------------|--------------|-------------|
| -9999.9999 | Predicted A2 | sub-leading |
| Predicted A1 | -9999.9999 | leading |

Try to kept information from with jet leading and sub-leading pt coming

Inference on signal mass 3.7 GeV (uncorrected predictions)



Inference on signal mass 14 GeV (uncorrected predictions)

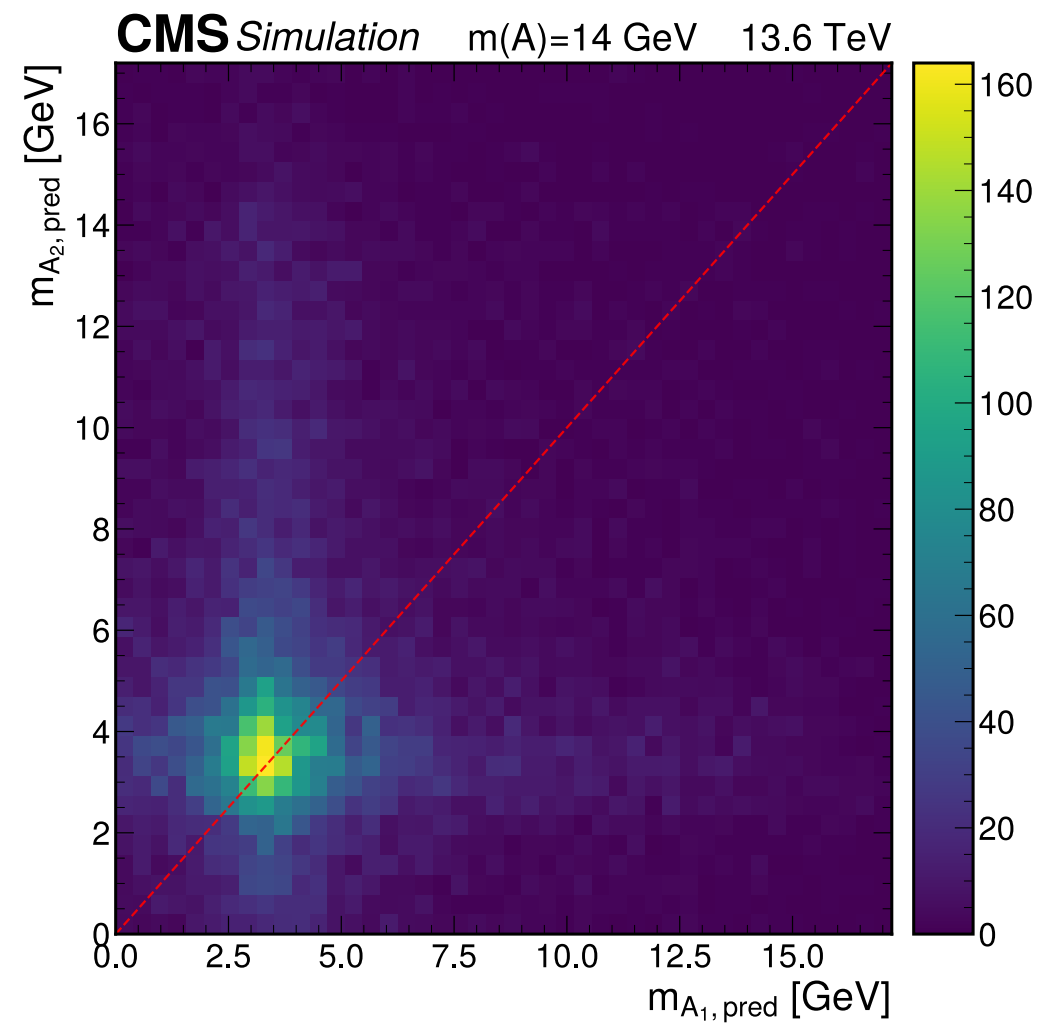
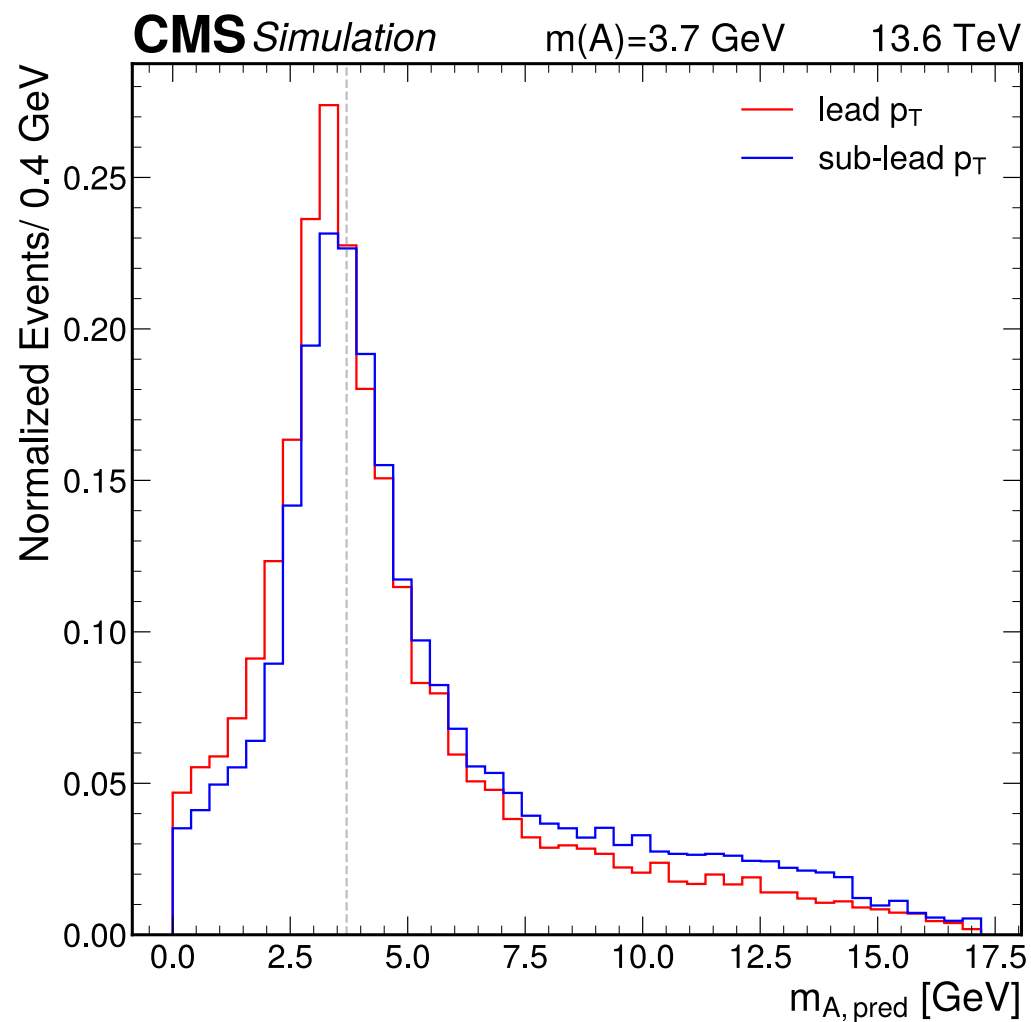


- Events with exactly 2 jets selected
- Inference directly ran on root file and 4 new column
mass_A1_raw(leading jet pT) and mass_A2_raw (sub-leading jet pT),
mass_A1(corrected) and mass_A2(corrected) added.

| Mass_A1_raw | Mass_A2_raw | mass_A1 | mass_A2 | JetpT |
|--------------|--------------|--------------|--------------|-------------|
| Corrected A1 | -9999.9999 | Predicted A1 | -9999.9999 | leading |
| -9999.9999 | Corrected A2 | -9999.9999 | Predicted A2 | sub-leading |

Try to kept information from with jet leading and sub-leading pt coming

Inference on signal mass 3.7 GeV (corrected predictions)



Inference on signal mass 14 GeV (corrected predictions)

