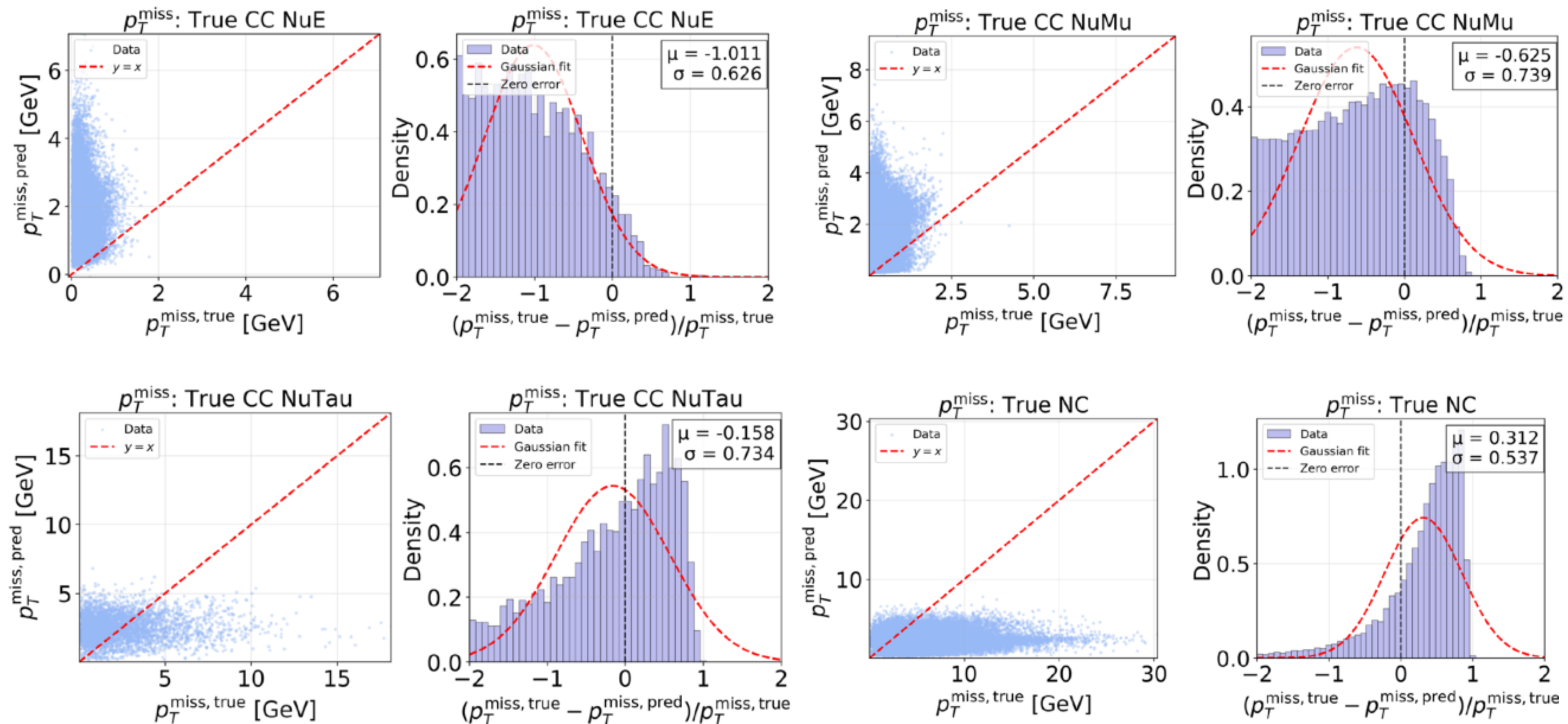


*BDT Results



Deep Learning Model: p_T^{miss}

Regression Results

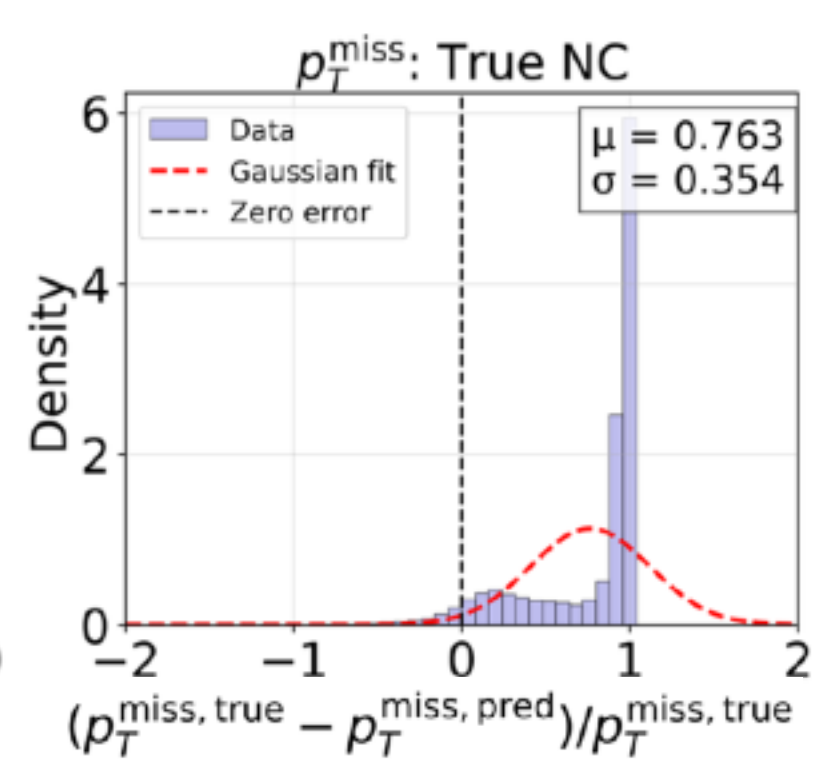
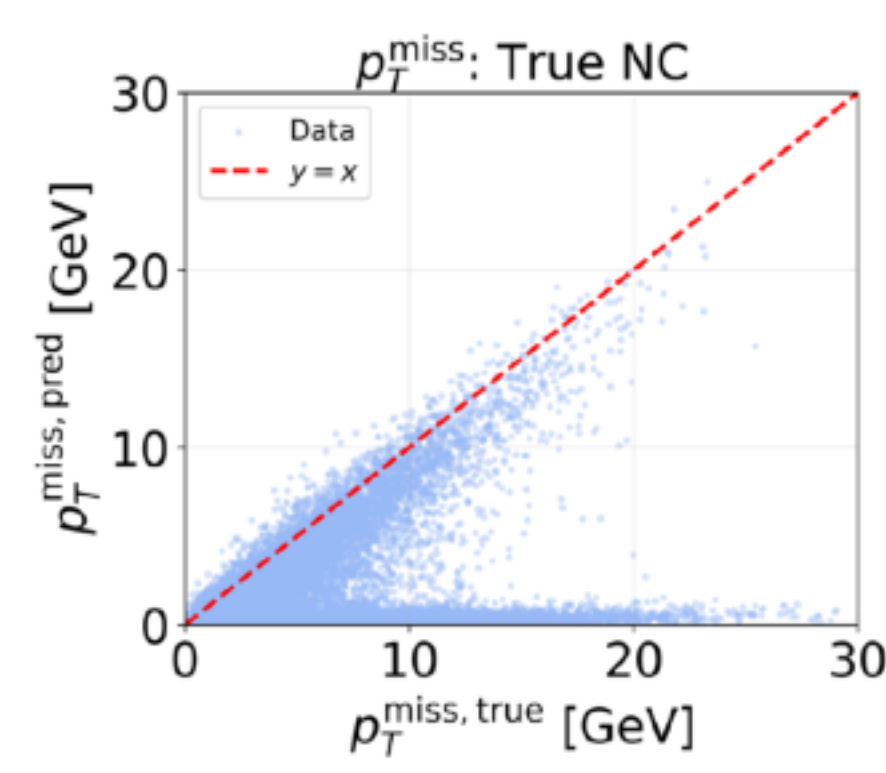
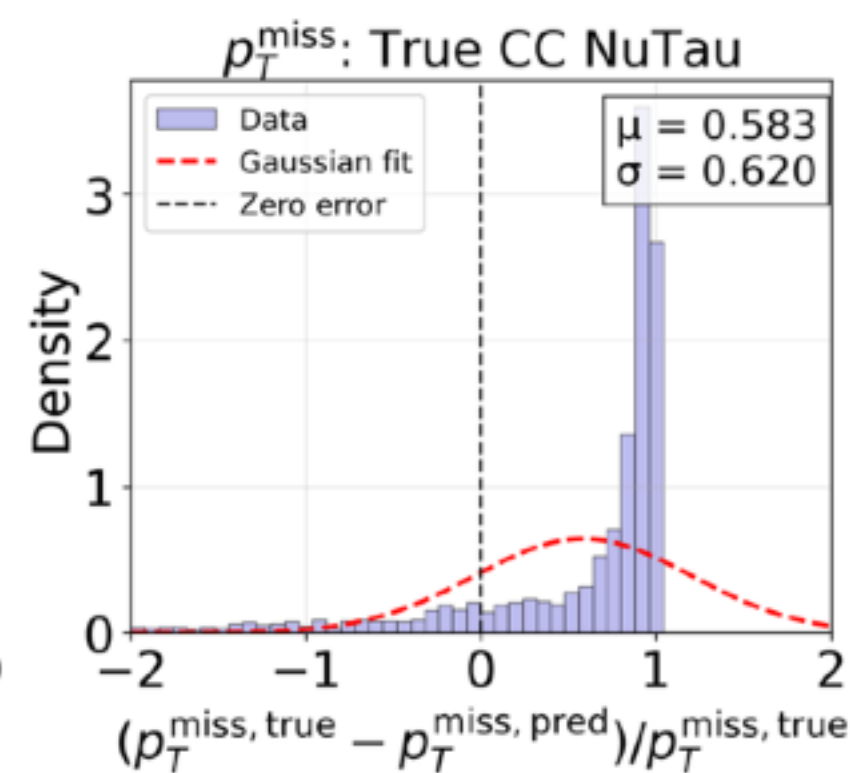
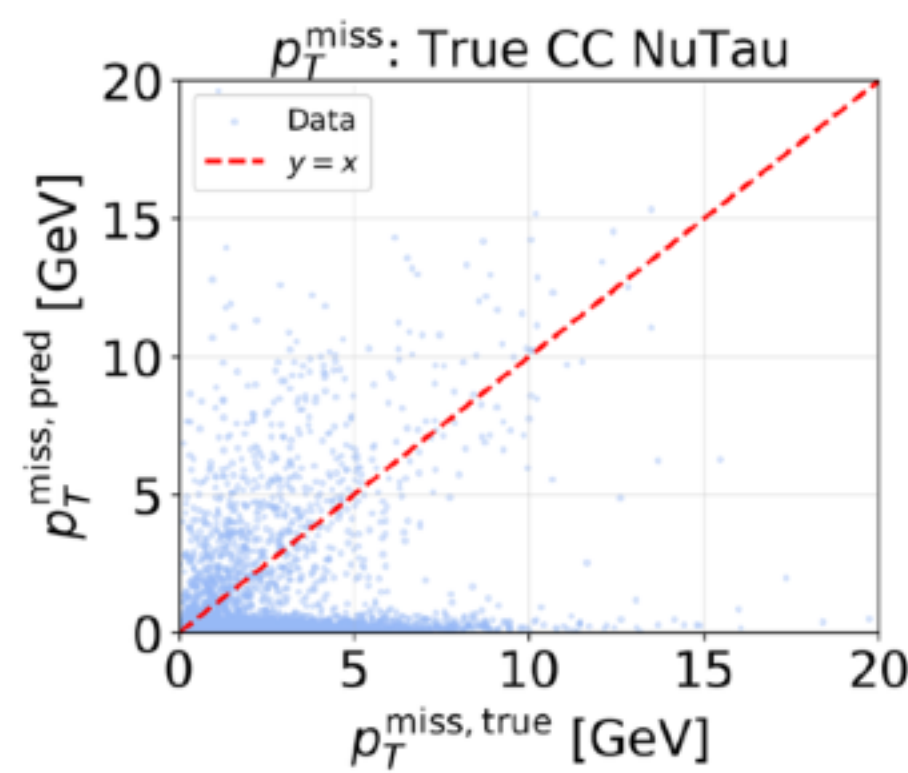
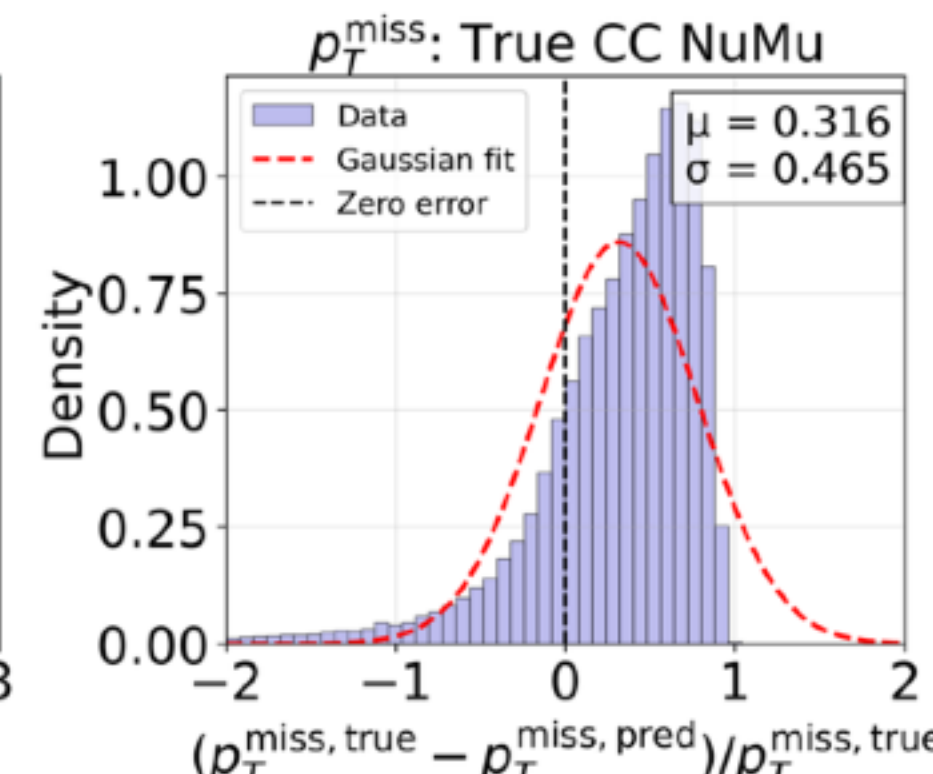
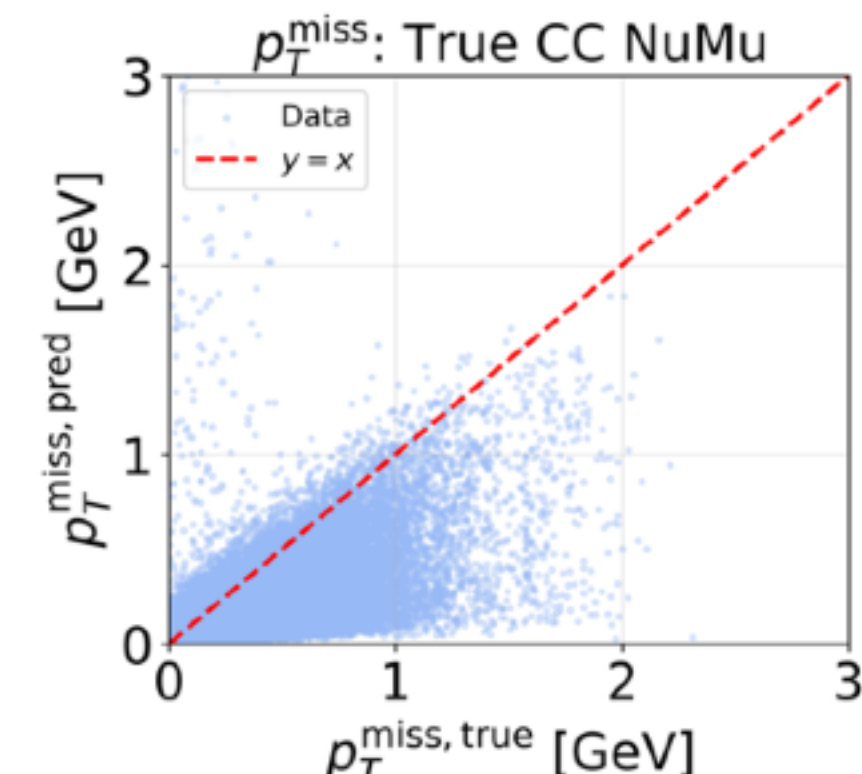
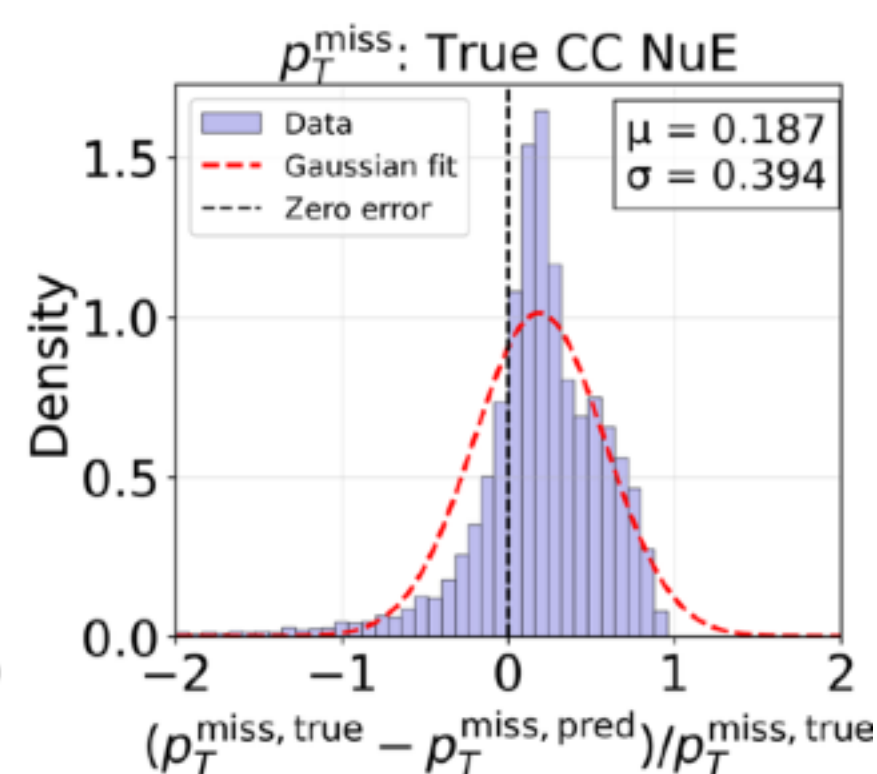
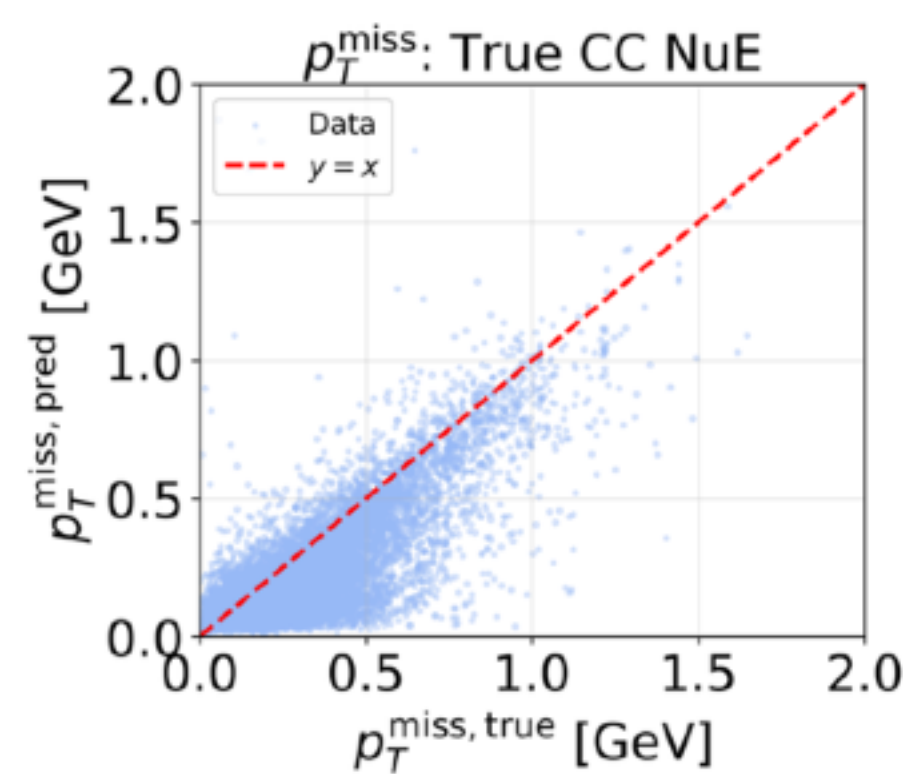


- **pt_miss**: magnitude of x,y components
visible_momentum.
- **Resolving the p_T^{miss} Dilemma:**
Pre-Train finds a much more physically robust solution to the bimodal distribution.
 - Excellent, low-bias prediction for ν_e and ν_μ .
 - Simultaneously improving prediction for high- p_T^{miss} NC and ν_τ classes.
- Superior understanding, but still with remarkable bias.

Deep Learning Model: p_T^{miss}

Regression Results

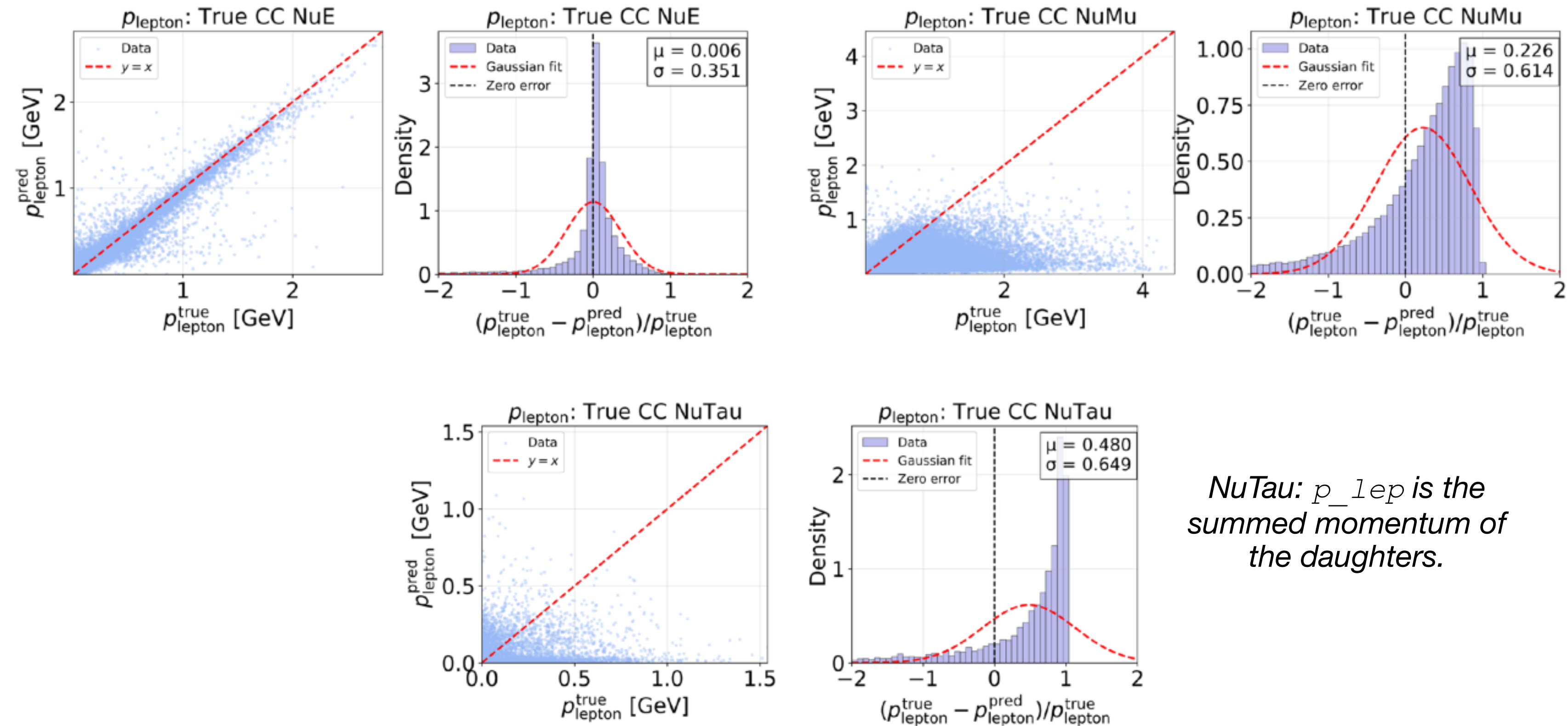
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Deep Learning Model: Lepton Momentum Magnitude

Regression Results

- The model successfully reconstructs the lepton and jet kinematics:
 - ν_τ **CC**: Challenge!
 - ν_μ **CC**: Misclassification of ν_μ as NC biasing the distribution.
- *No direct info on the Primlepton is given to the model!*
- Simultaneously successfully reconstructs the jet kinematics.



NuTau: p_{lep} is the summed momentum of the daughters.