

Weekly Update

July 7, 2025

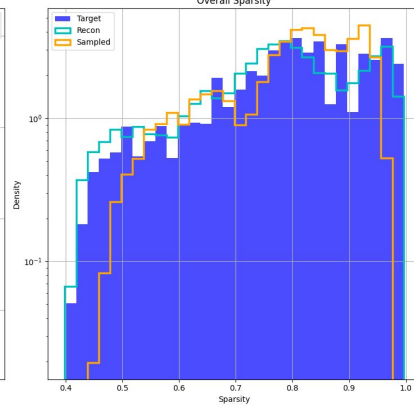
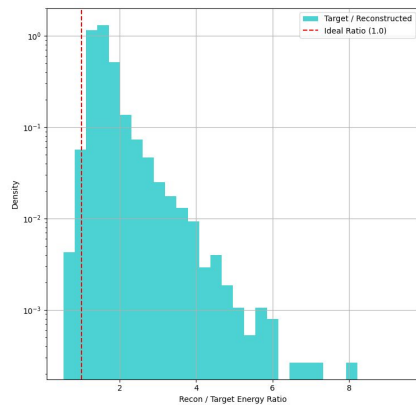
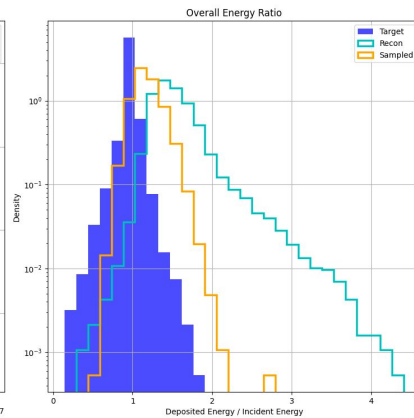
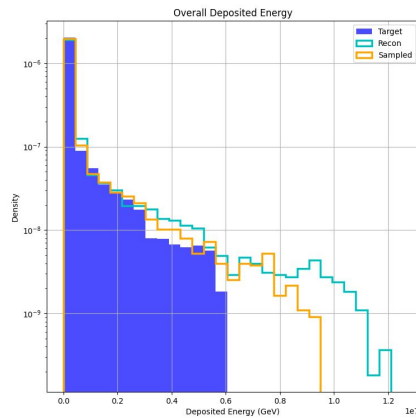
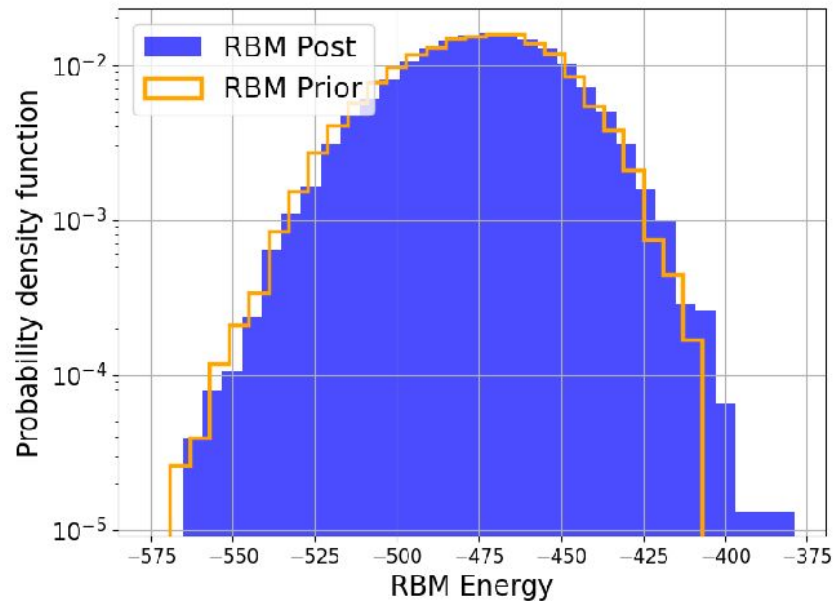
Leo Zhu, Denaisha Kraft

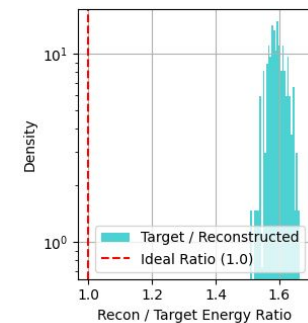
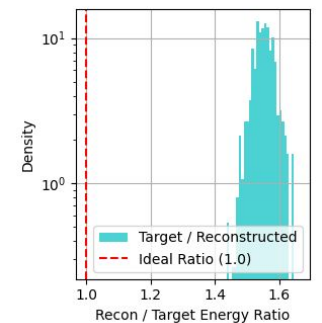
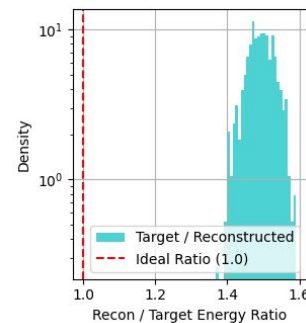
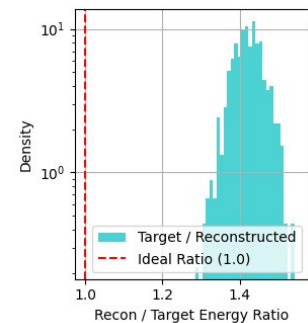
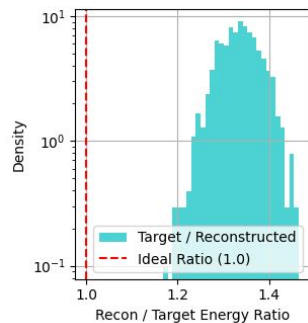
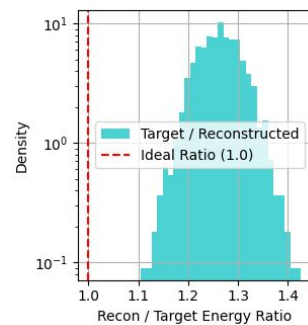
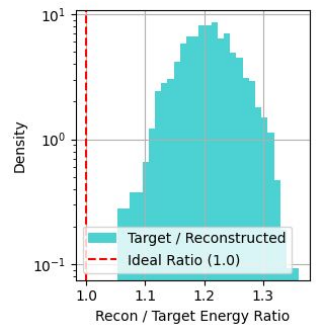
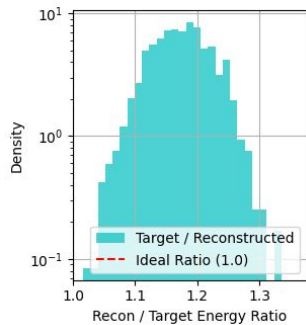
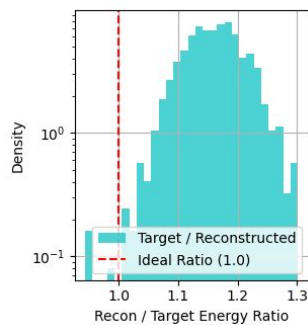
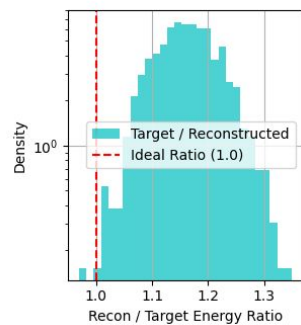
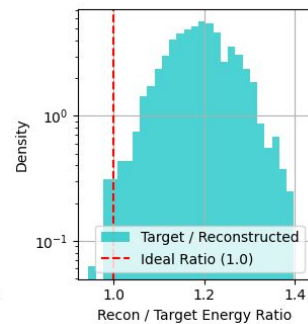
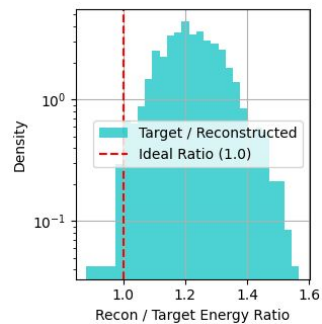
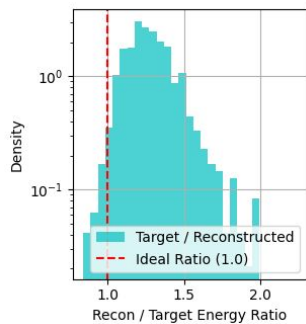
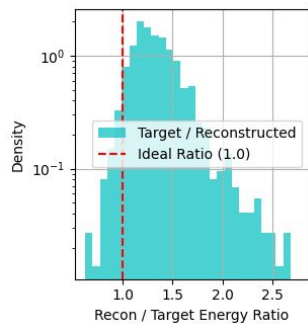
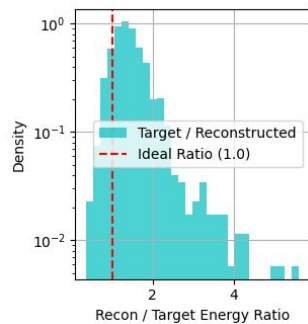
Updates on Code

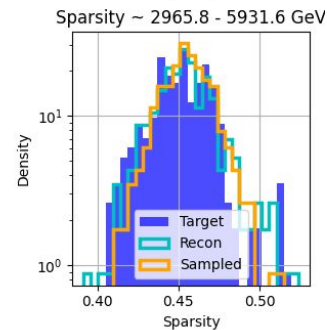
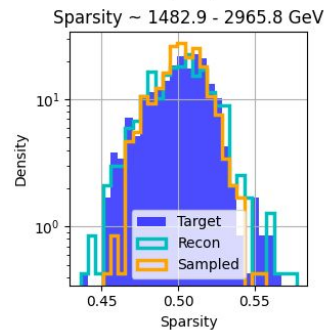
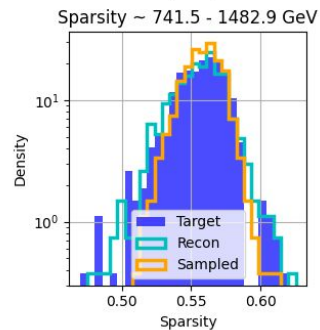
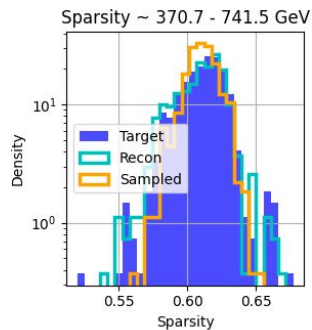
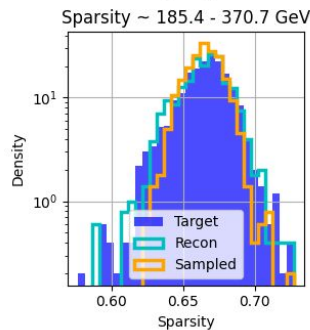
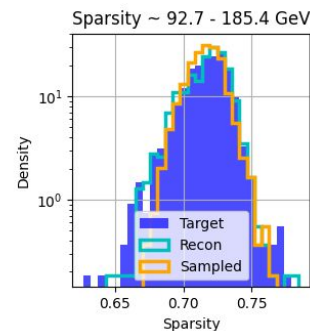
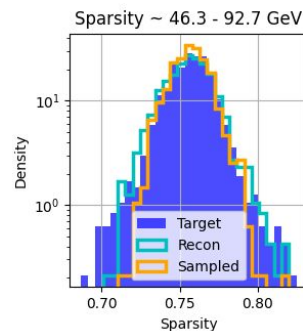
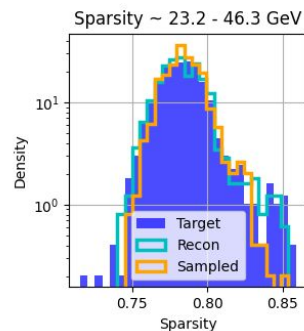
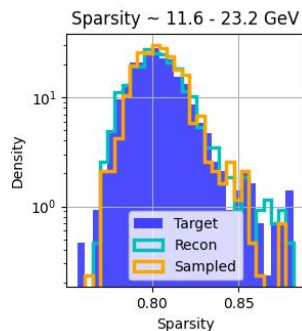
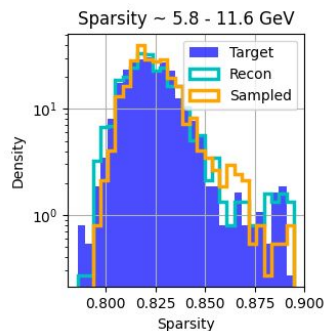
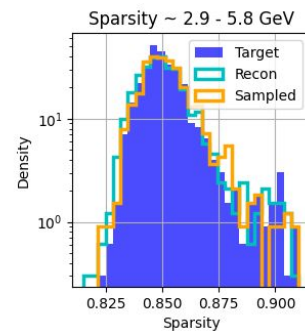
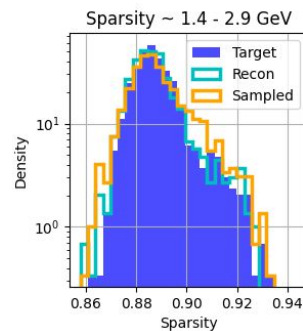
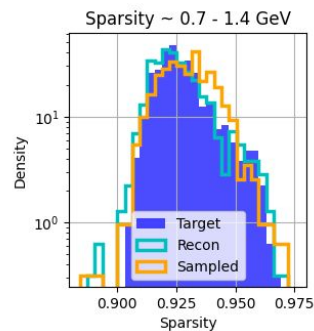
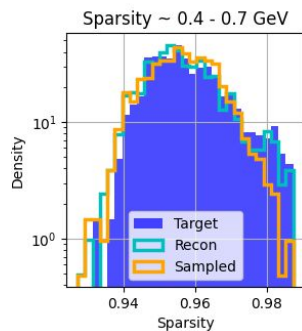
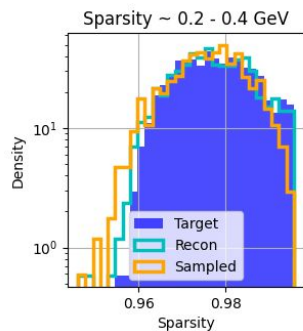
- Compute Canada fully set-up
 - Memory? Checkpoints?
- Separate autoencoder
- V2 Decoder
- TODO: Training RBM separately, skip connection upgrades, discriminator/patch MDM

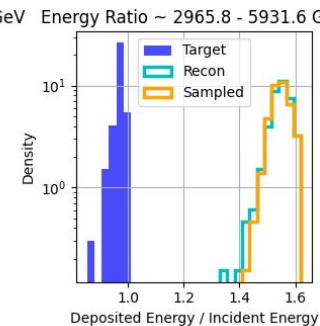
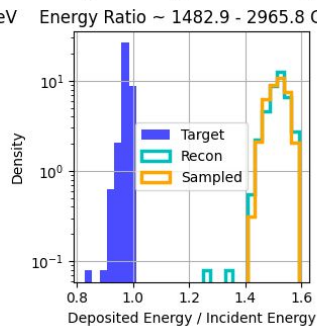
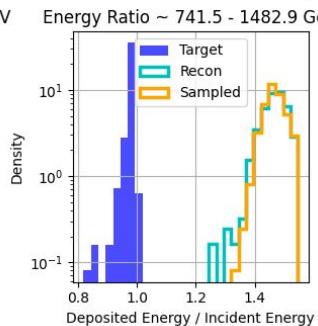
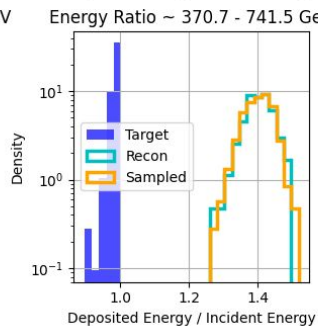
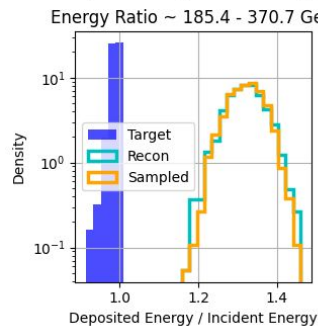
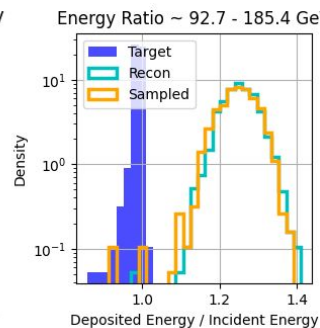
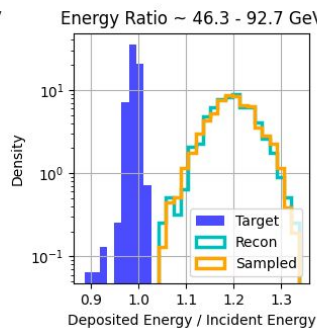
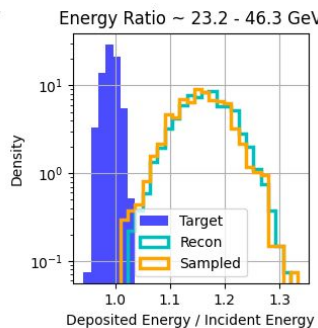
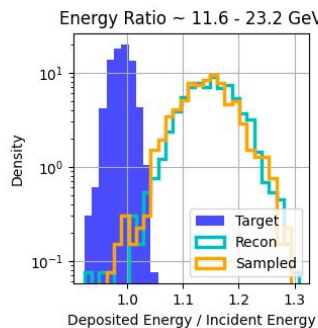
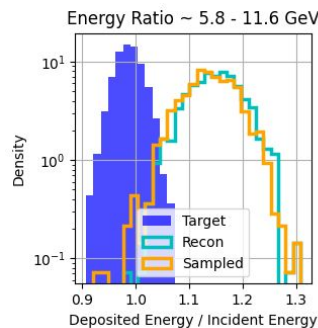
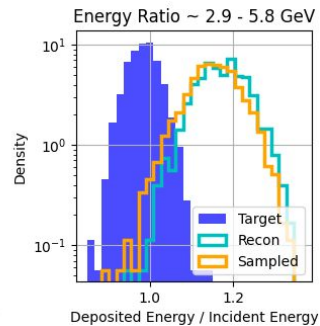
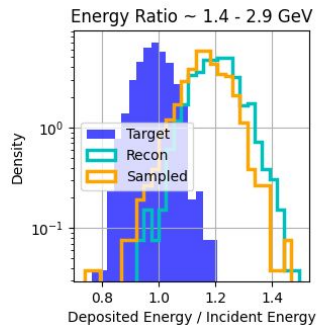
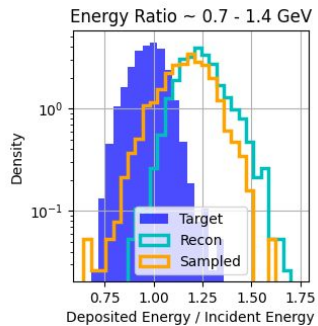
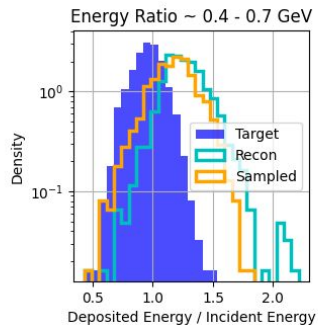
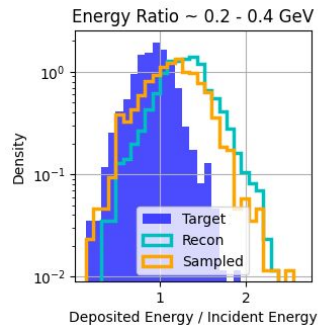
(Eta 0.35, Epoch 37)

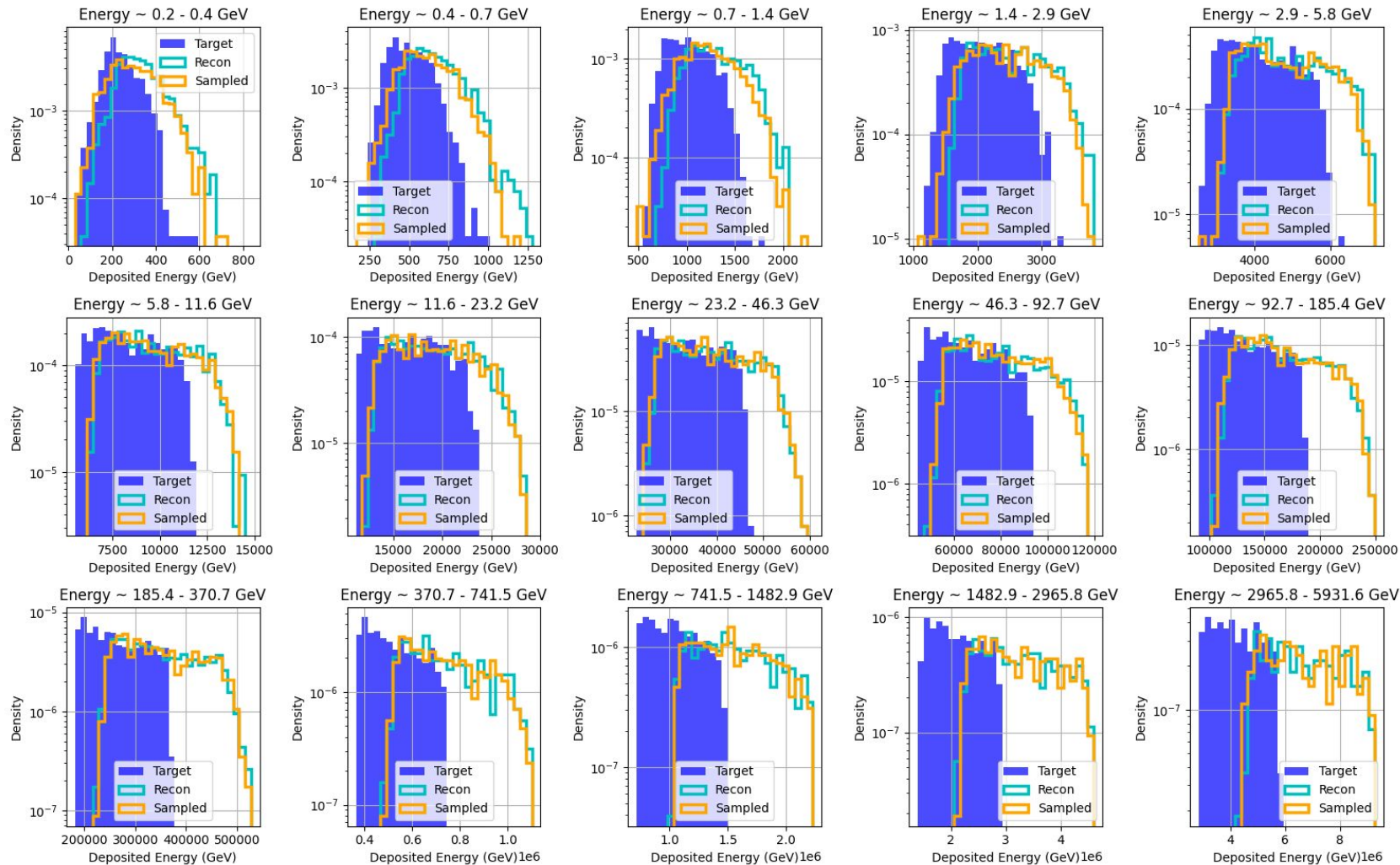
- Using mean absolute error (MAE) instead of MSE





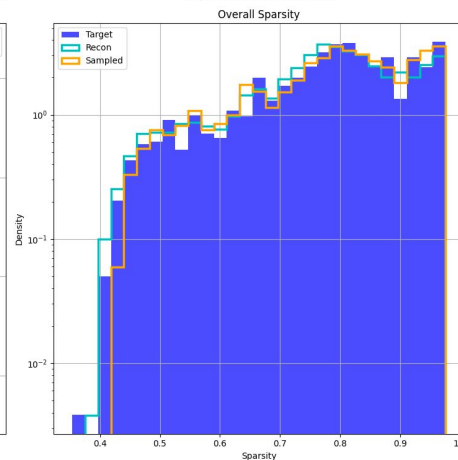
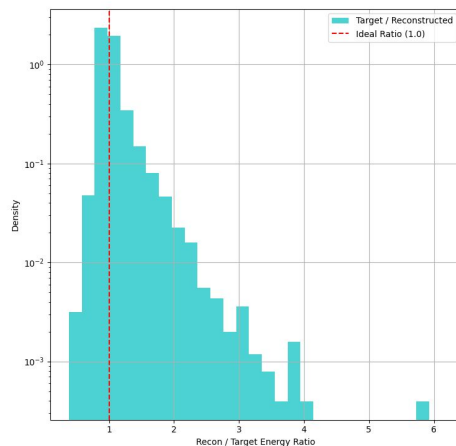
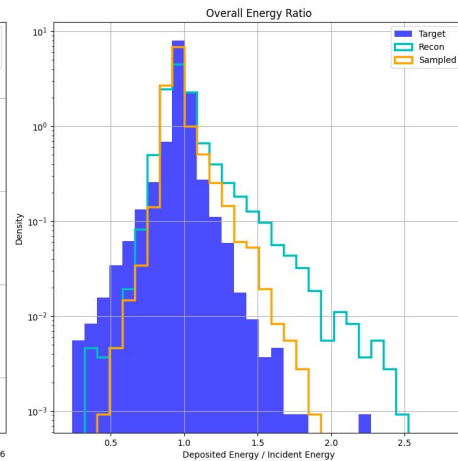
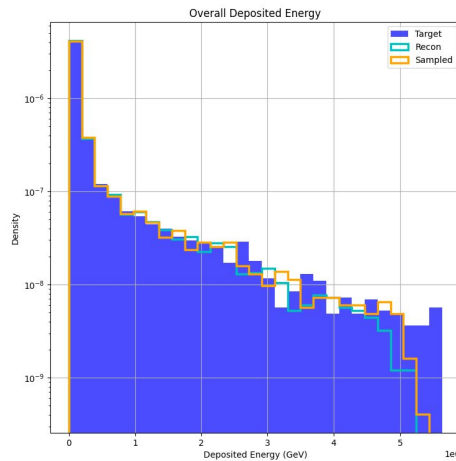
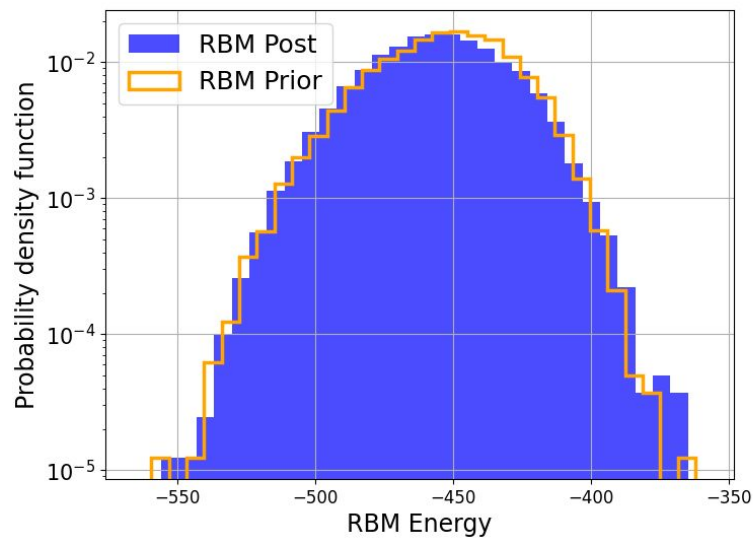


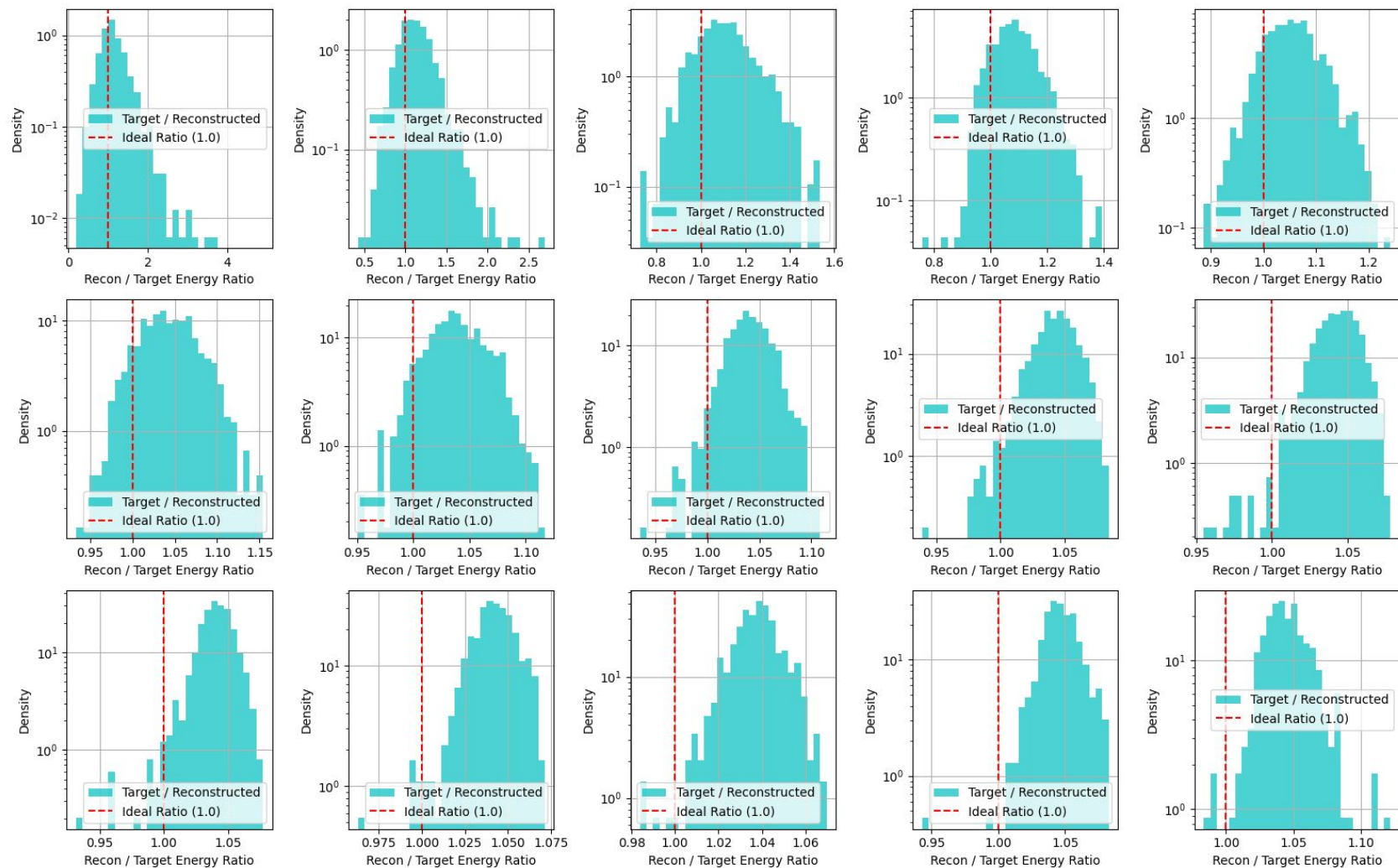


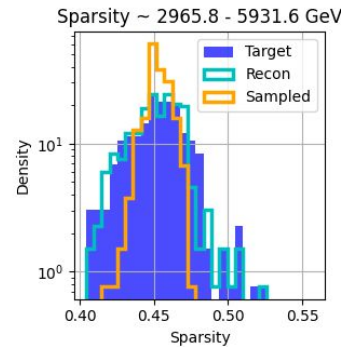
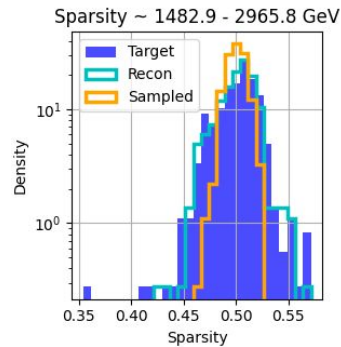
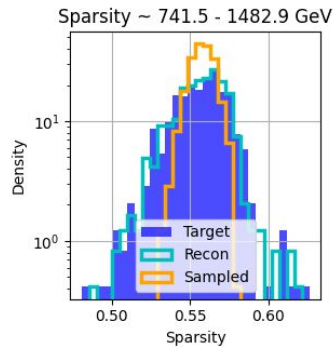
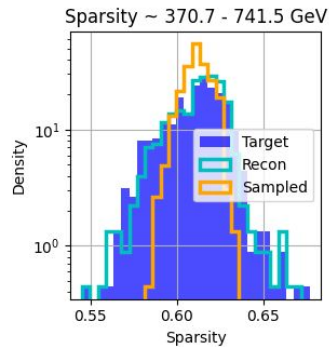
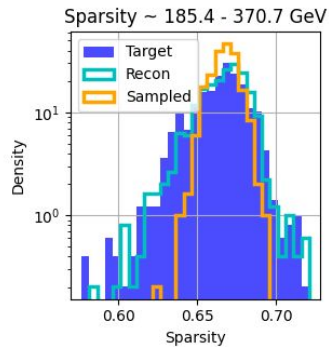
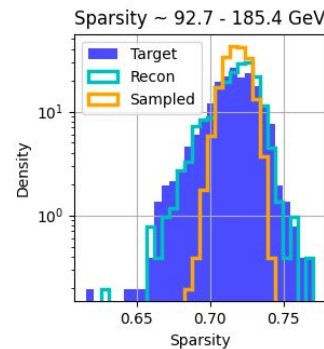
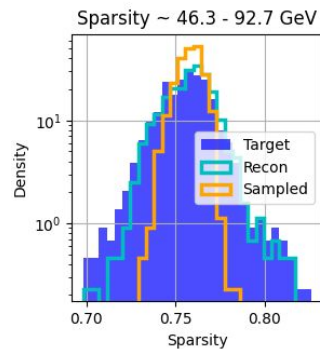
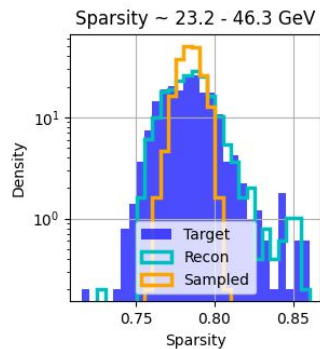
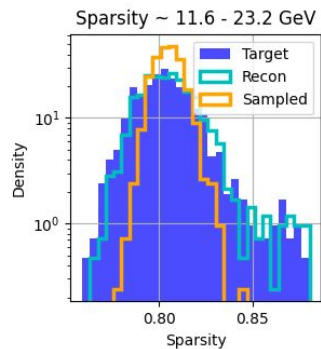
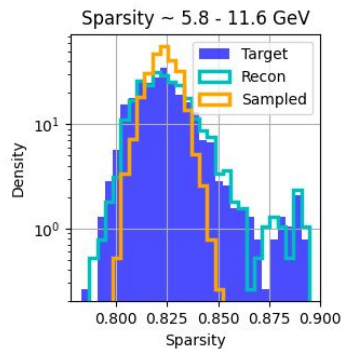
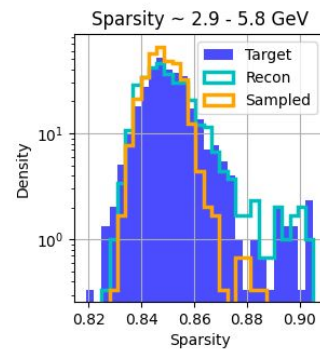
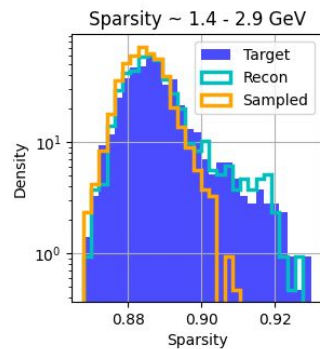
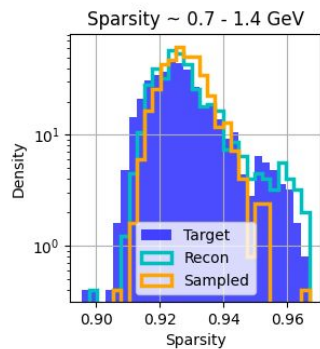
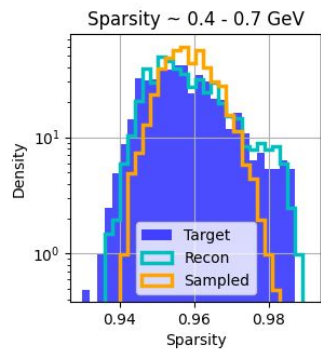
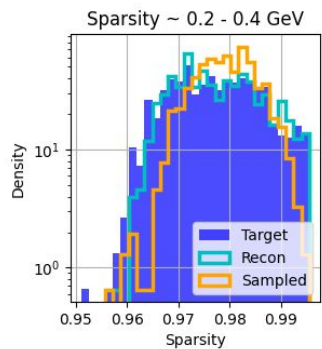


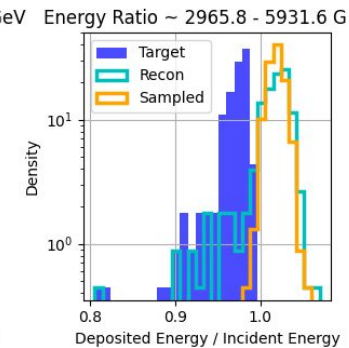
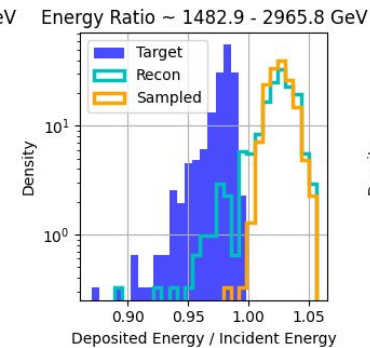
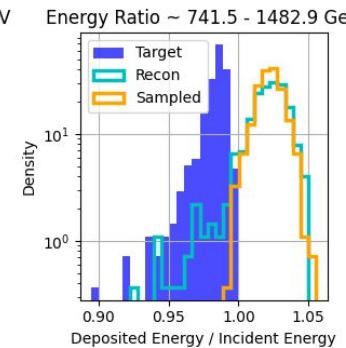
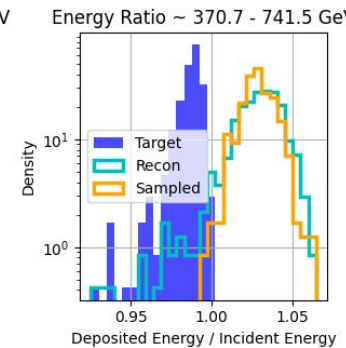
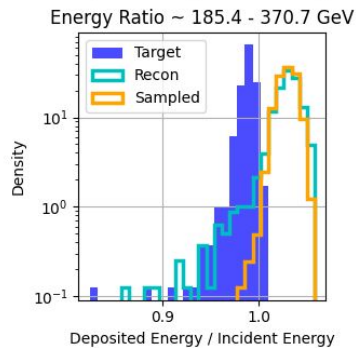
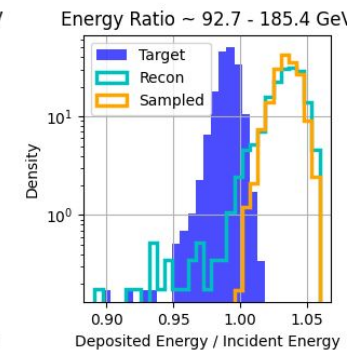
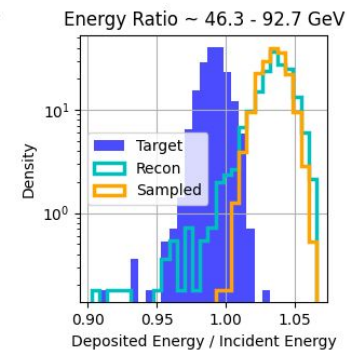
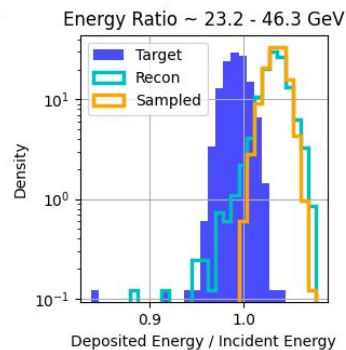
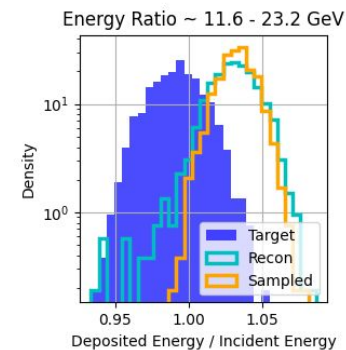
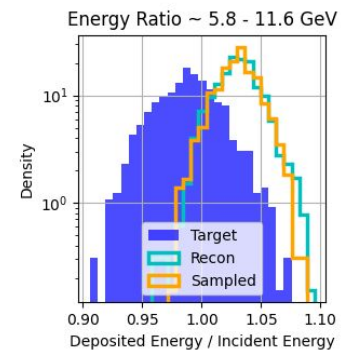
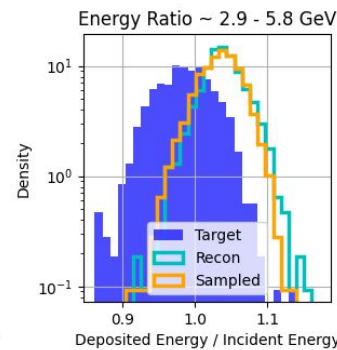
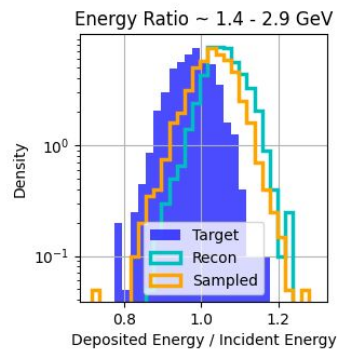
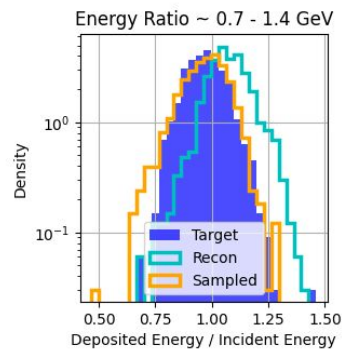
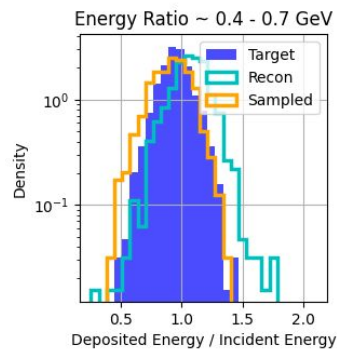
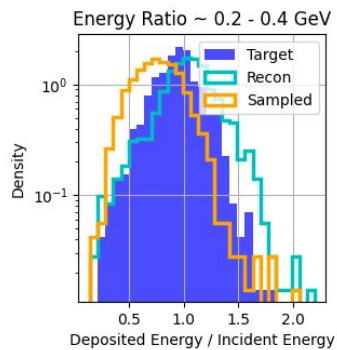
(Eta=0.35, Epoch 20)

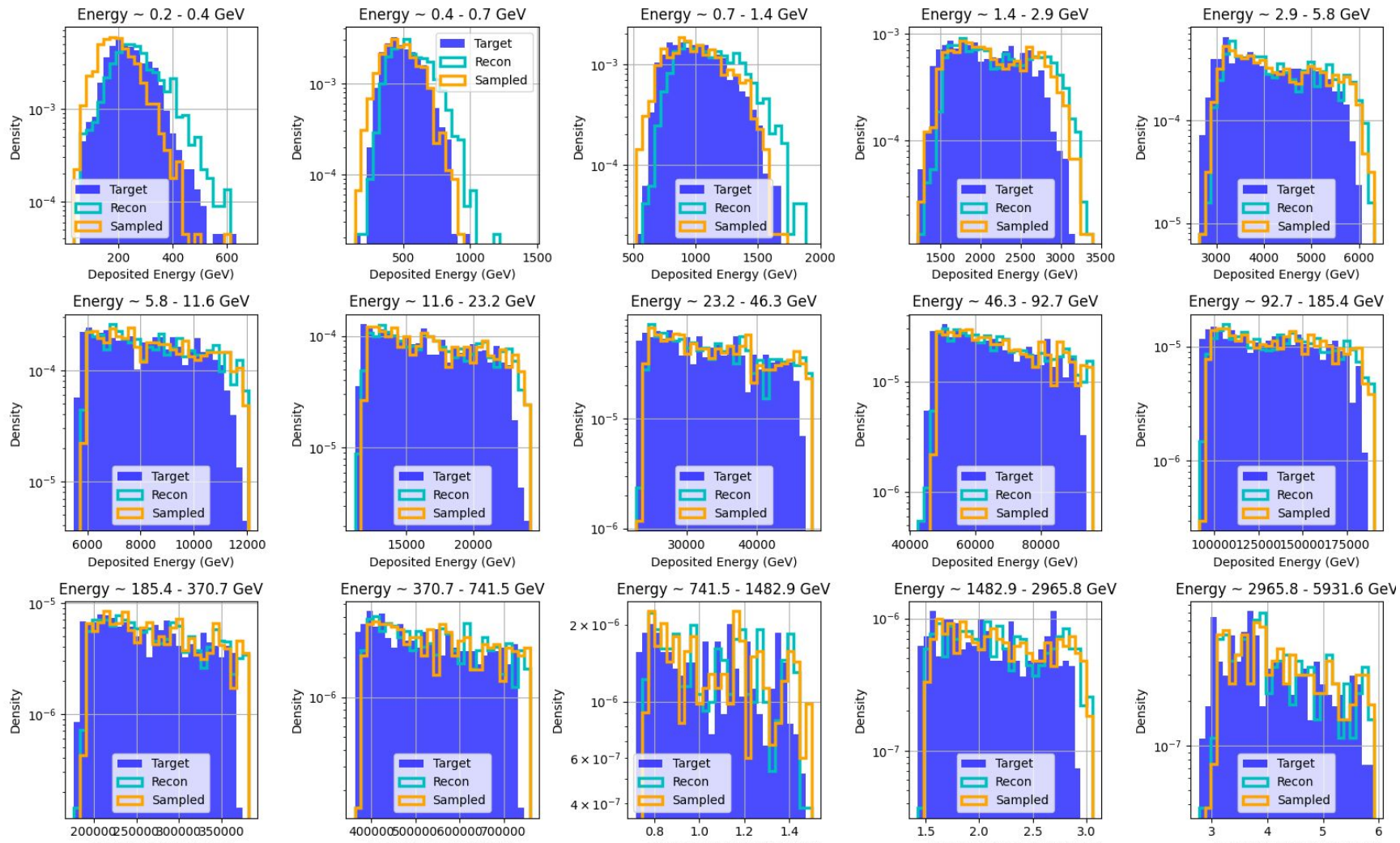
- Leo's V2 decoder











Separate VAE (Epoch 250, V2 Decoder)

- Much Faster Training
- Overfitting?

