

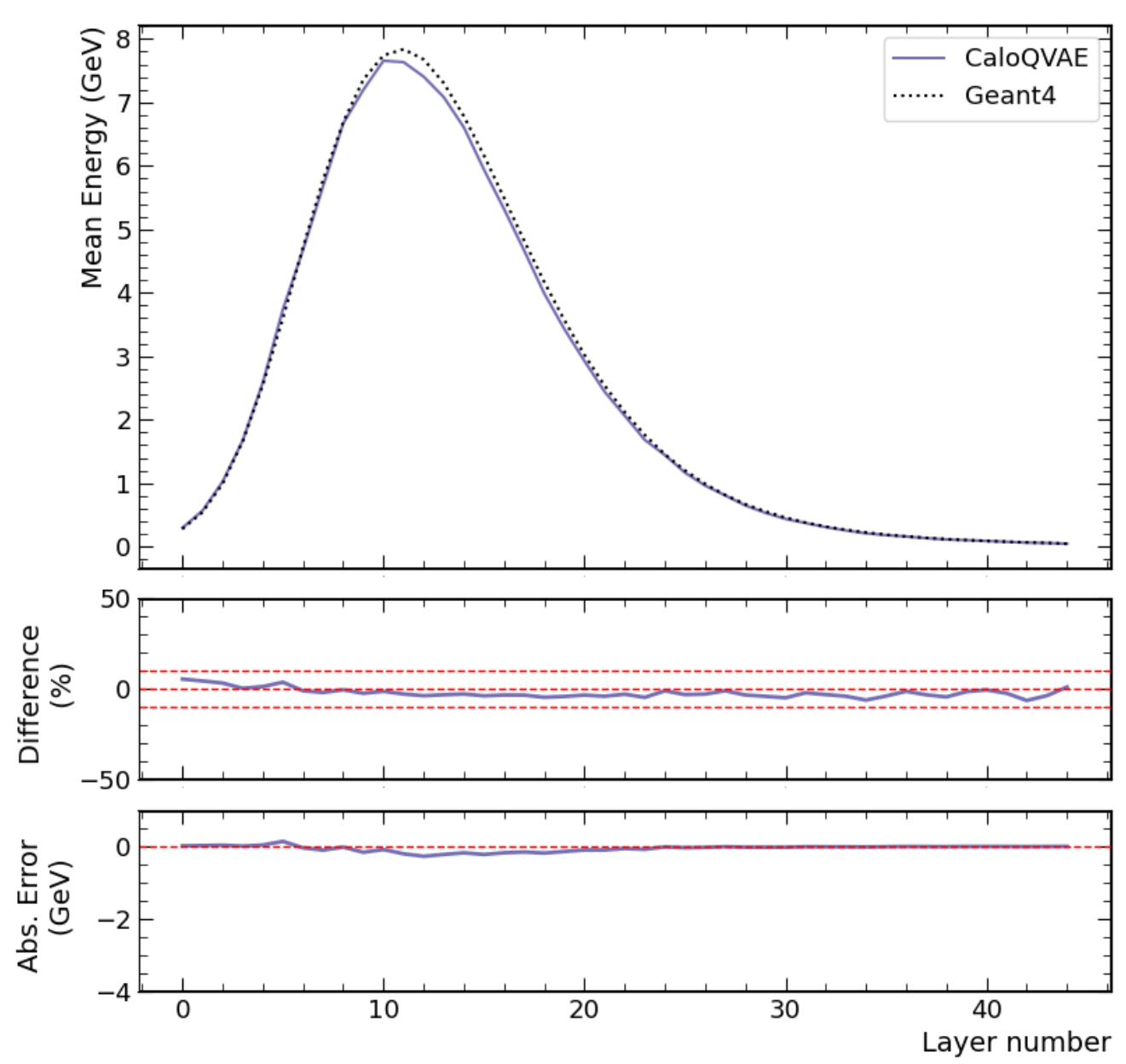
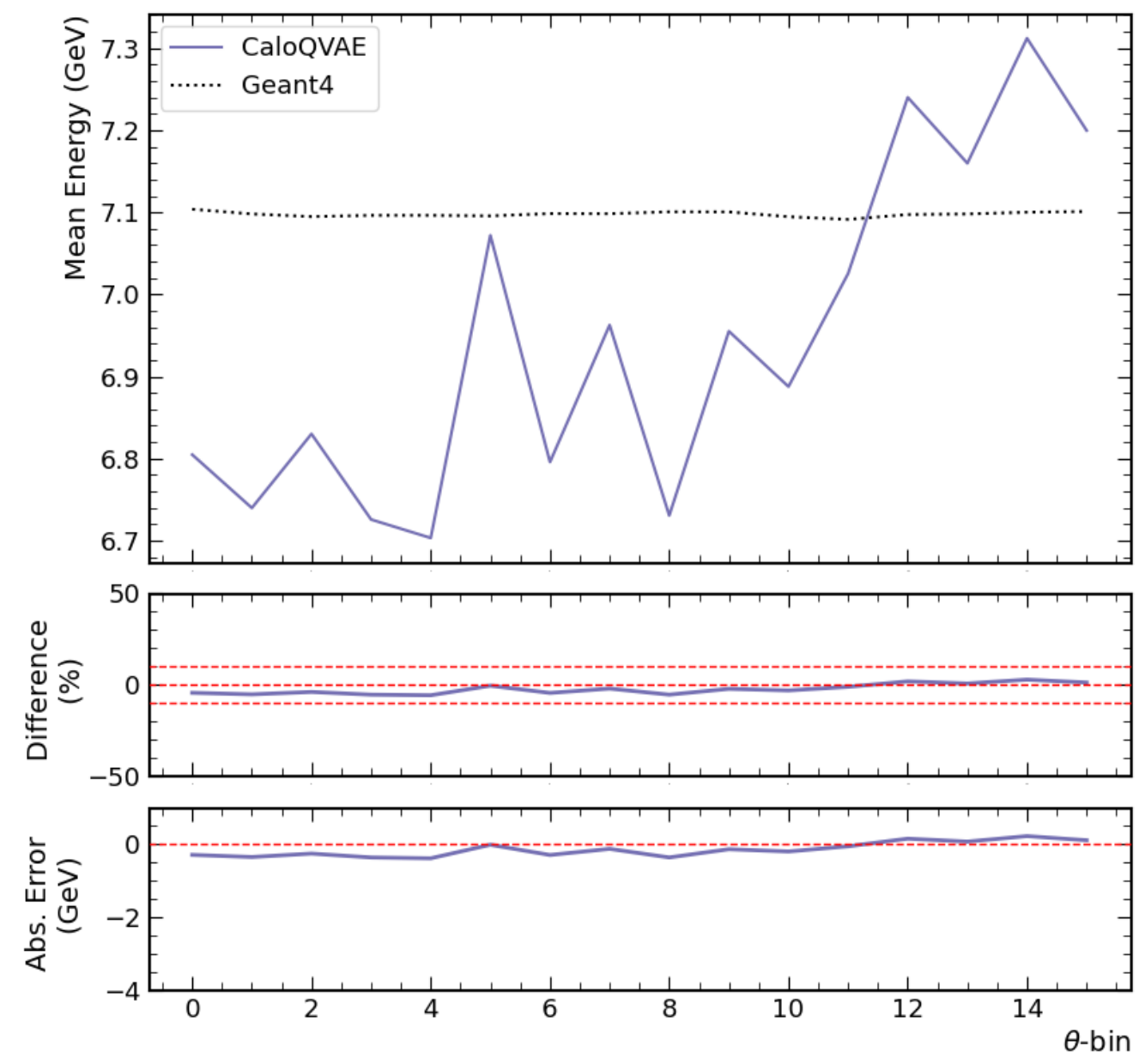
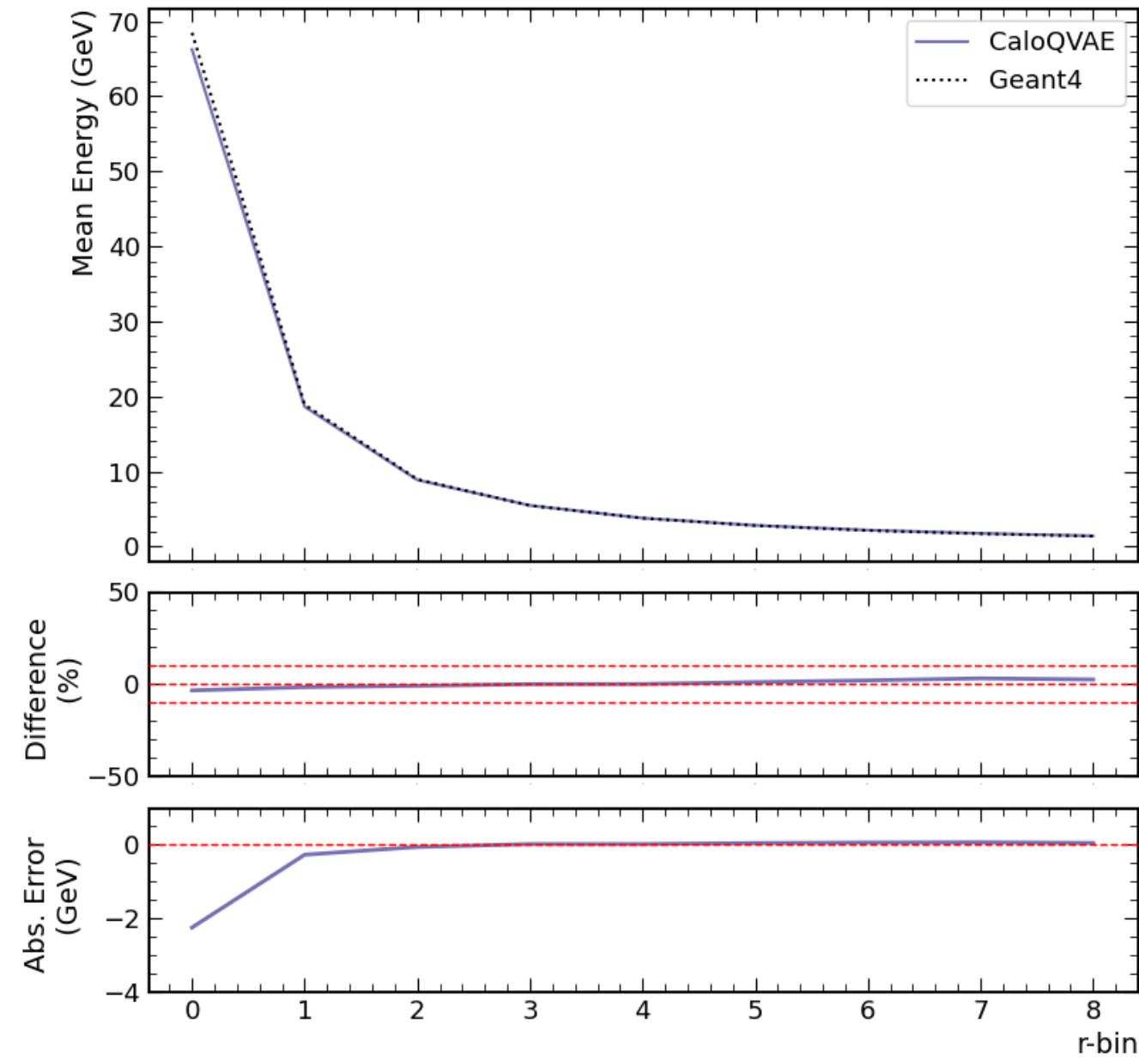
QVAE w/ Pegasus & Zephyr

Jul 8

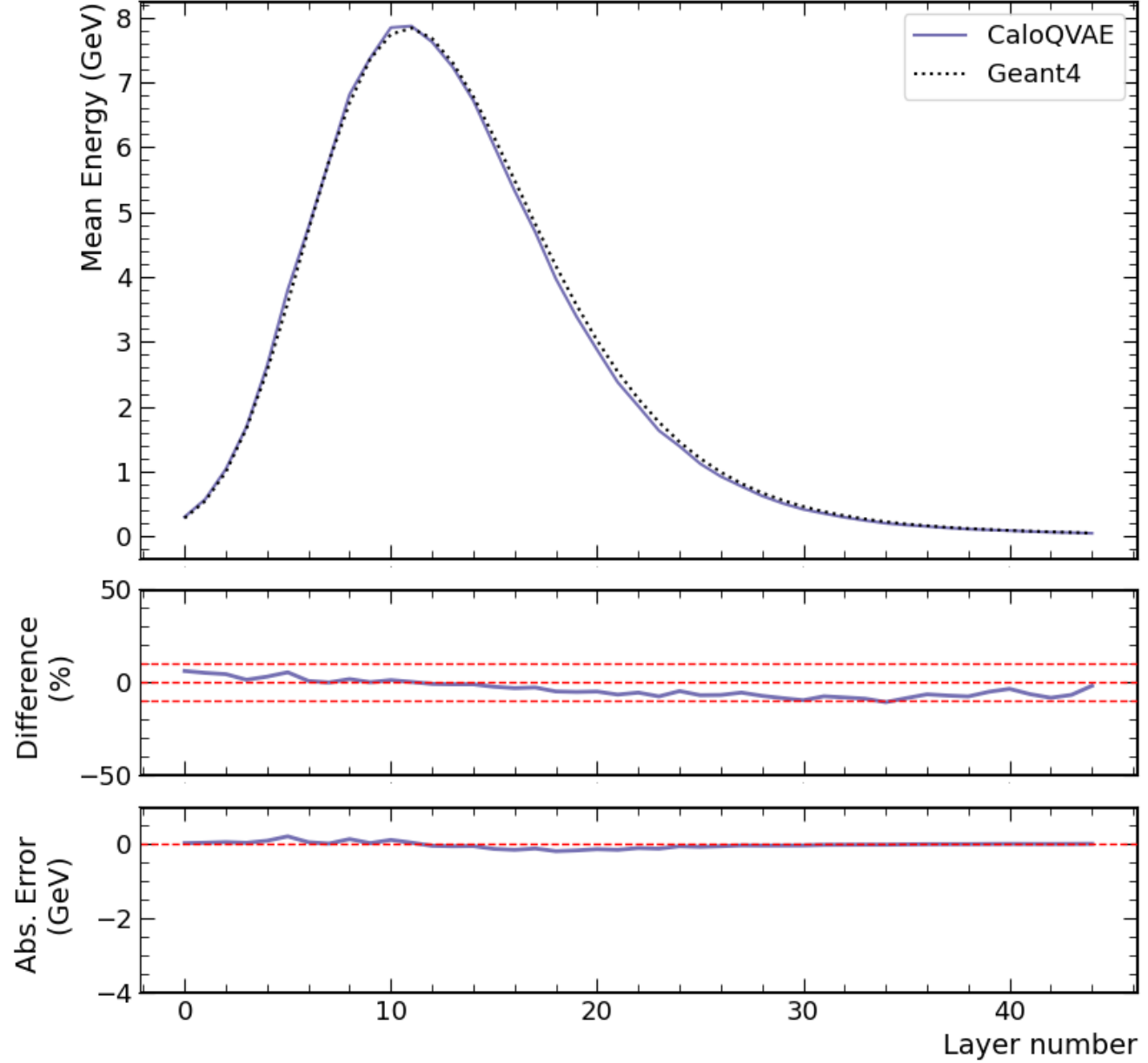
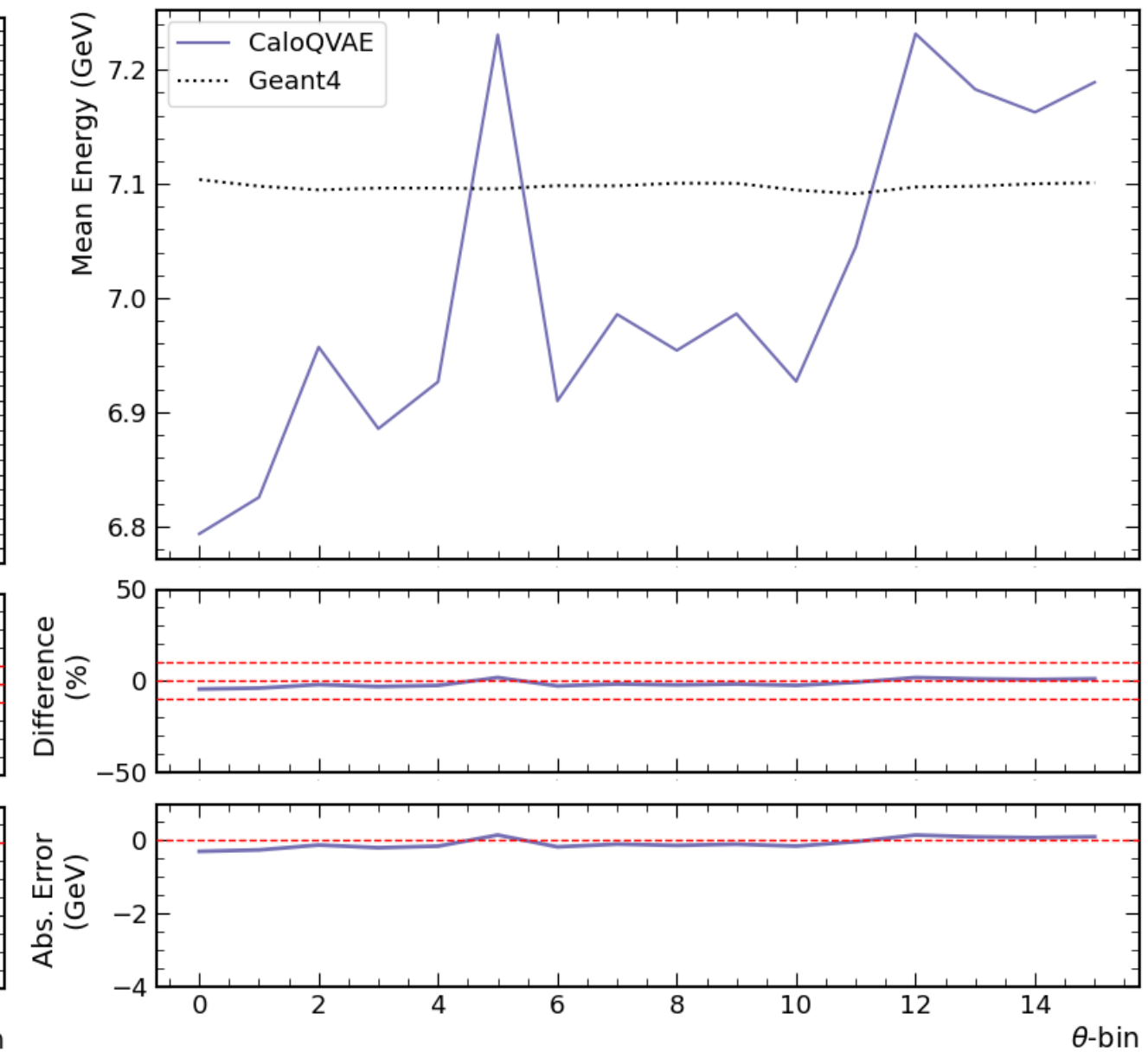
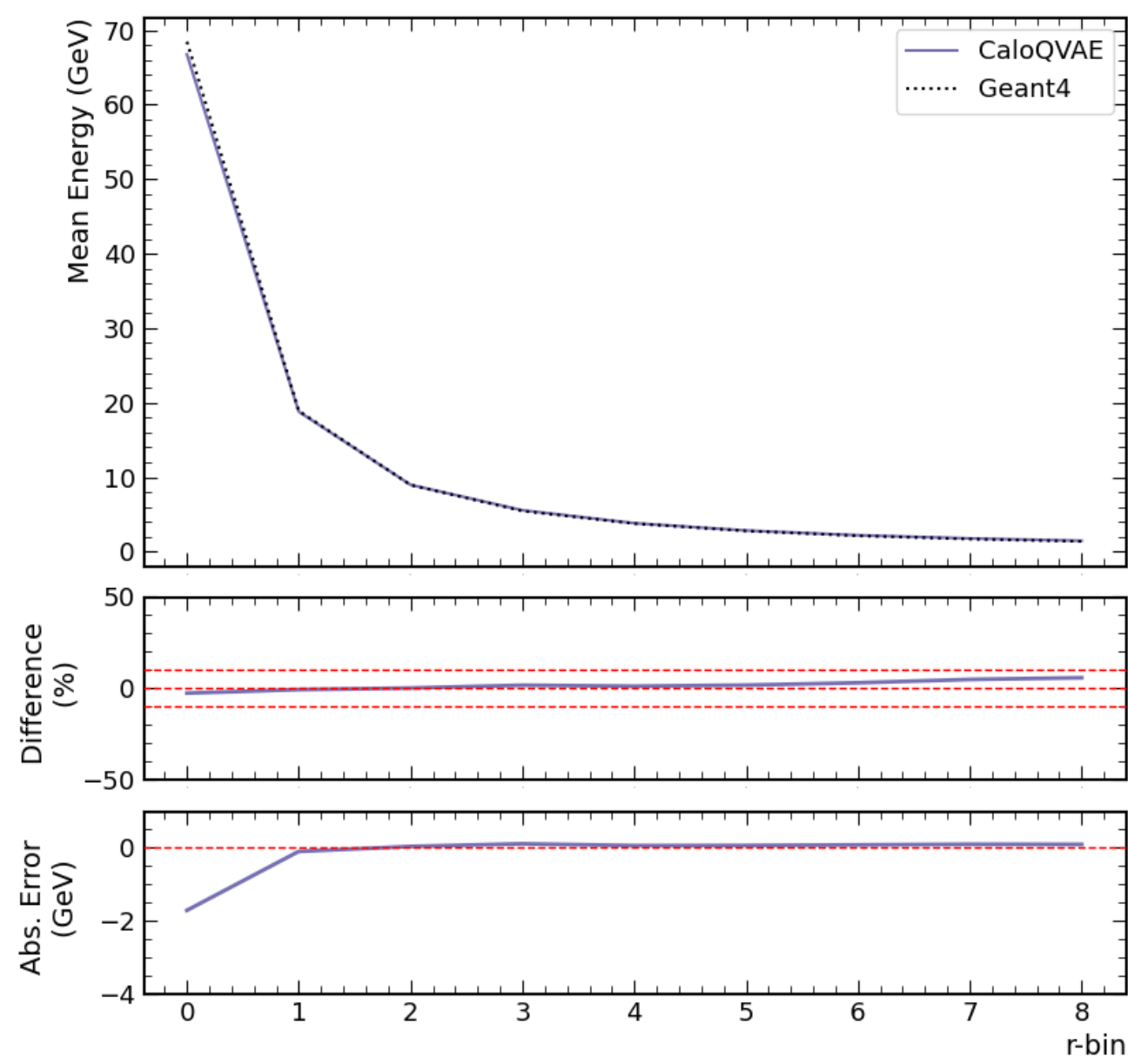
PRX

- Results for two models:
 - PBC + new pre-processing + Conditionalized RBM
- Comparison w/ test set (100k events)

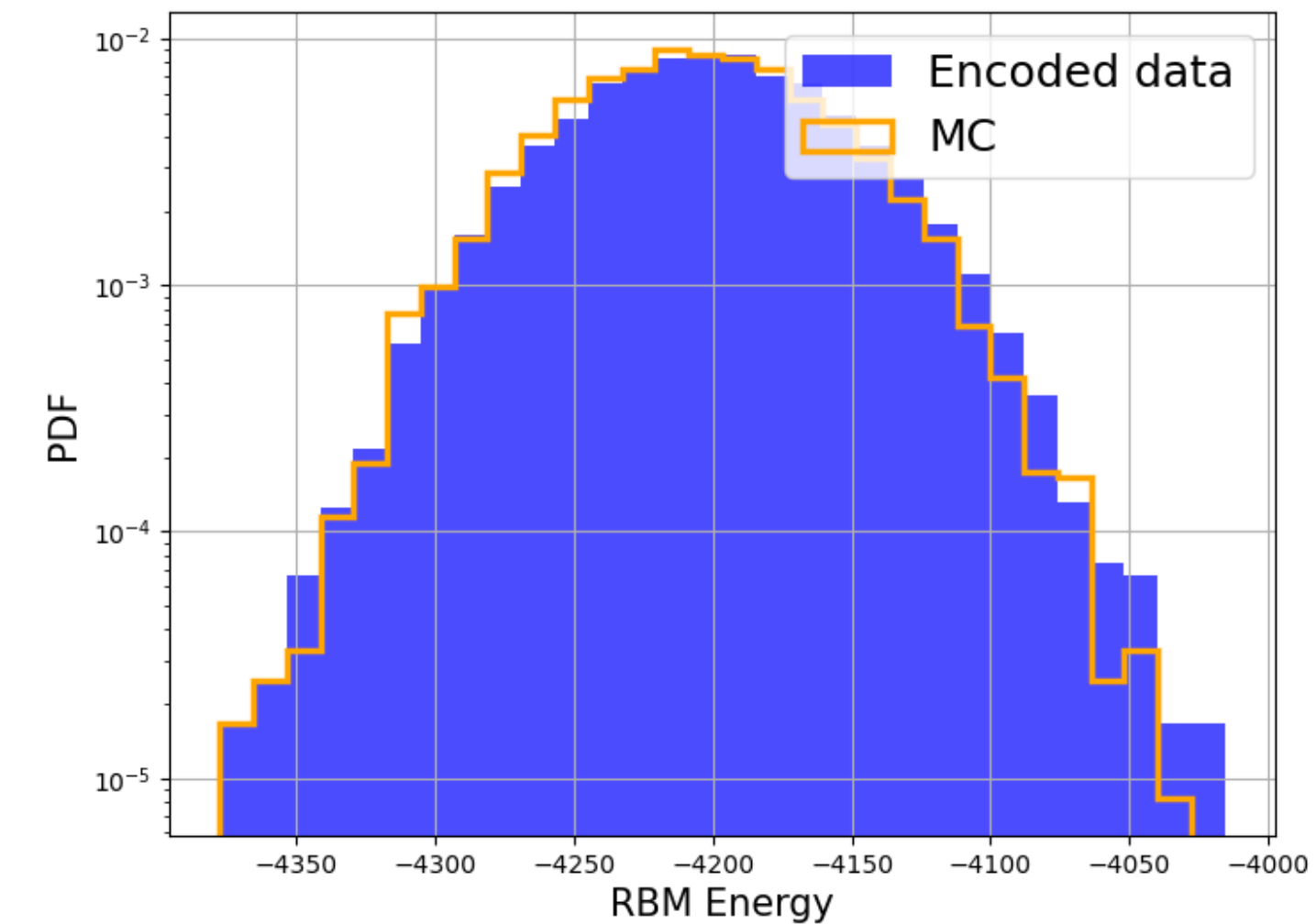
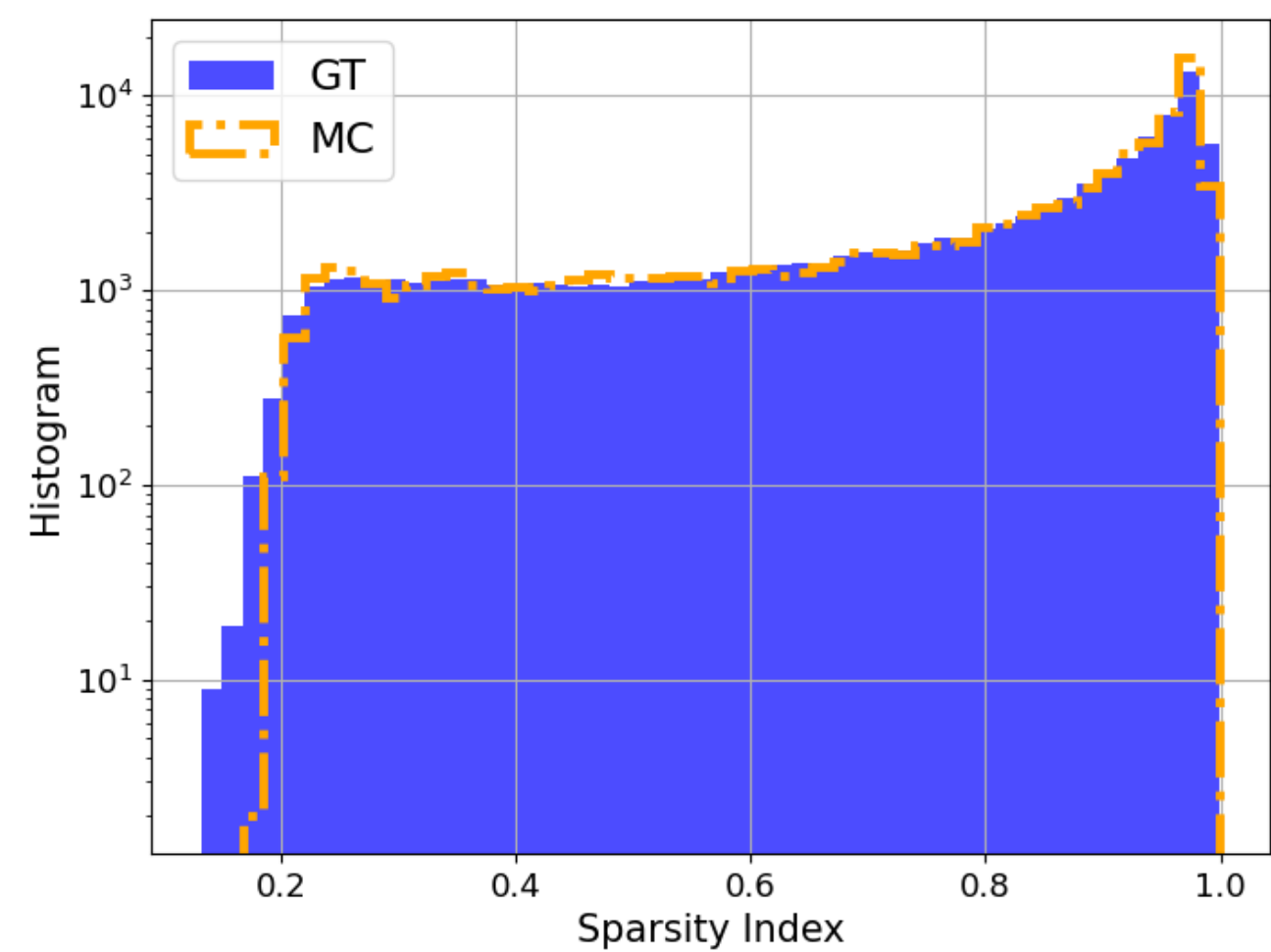
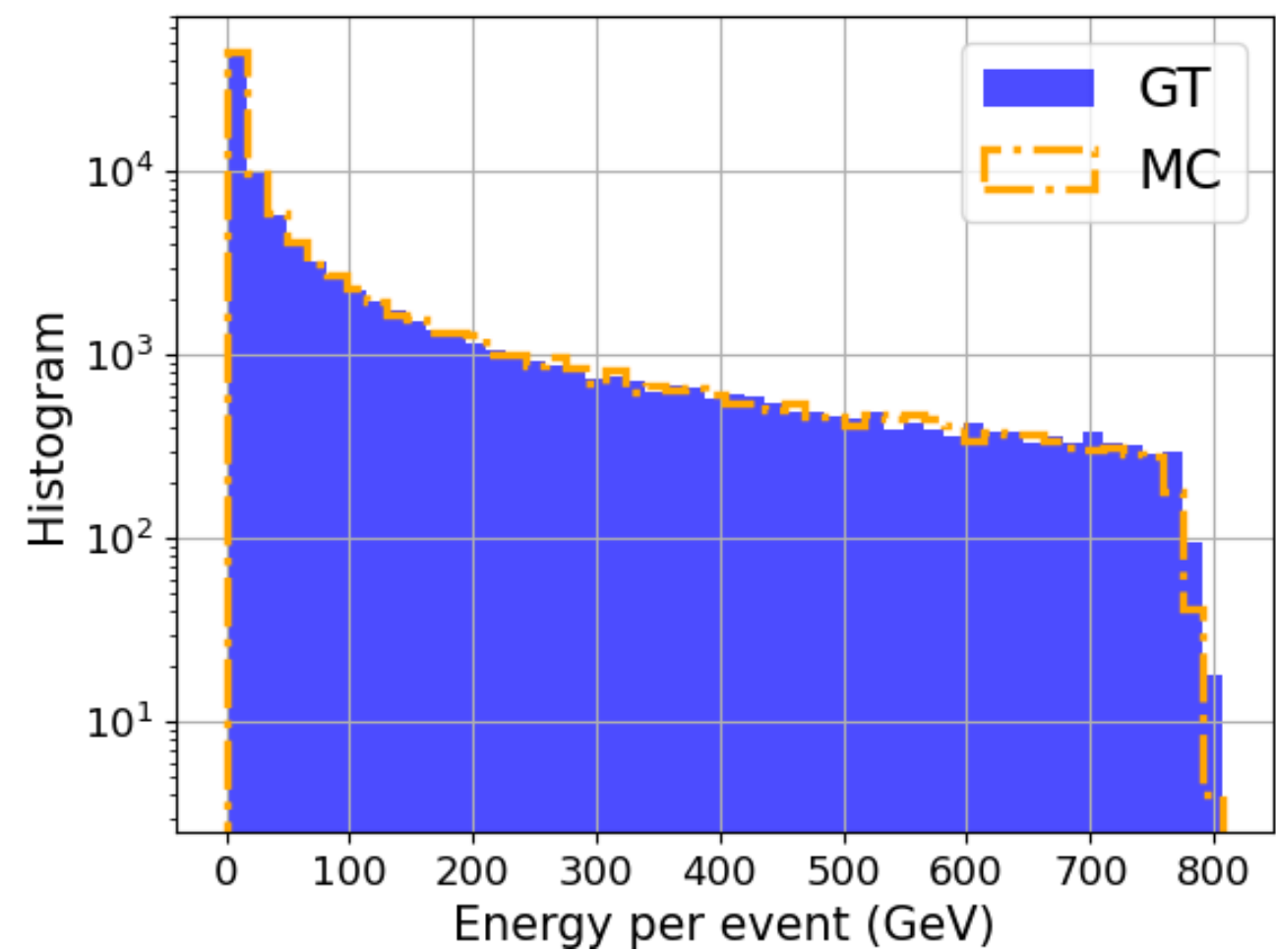
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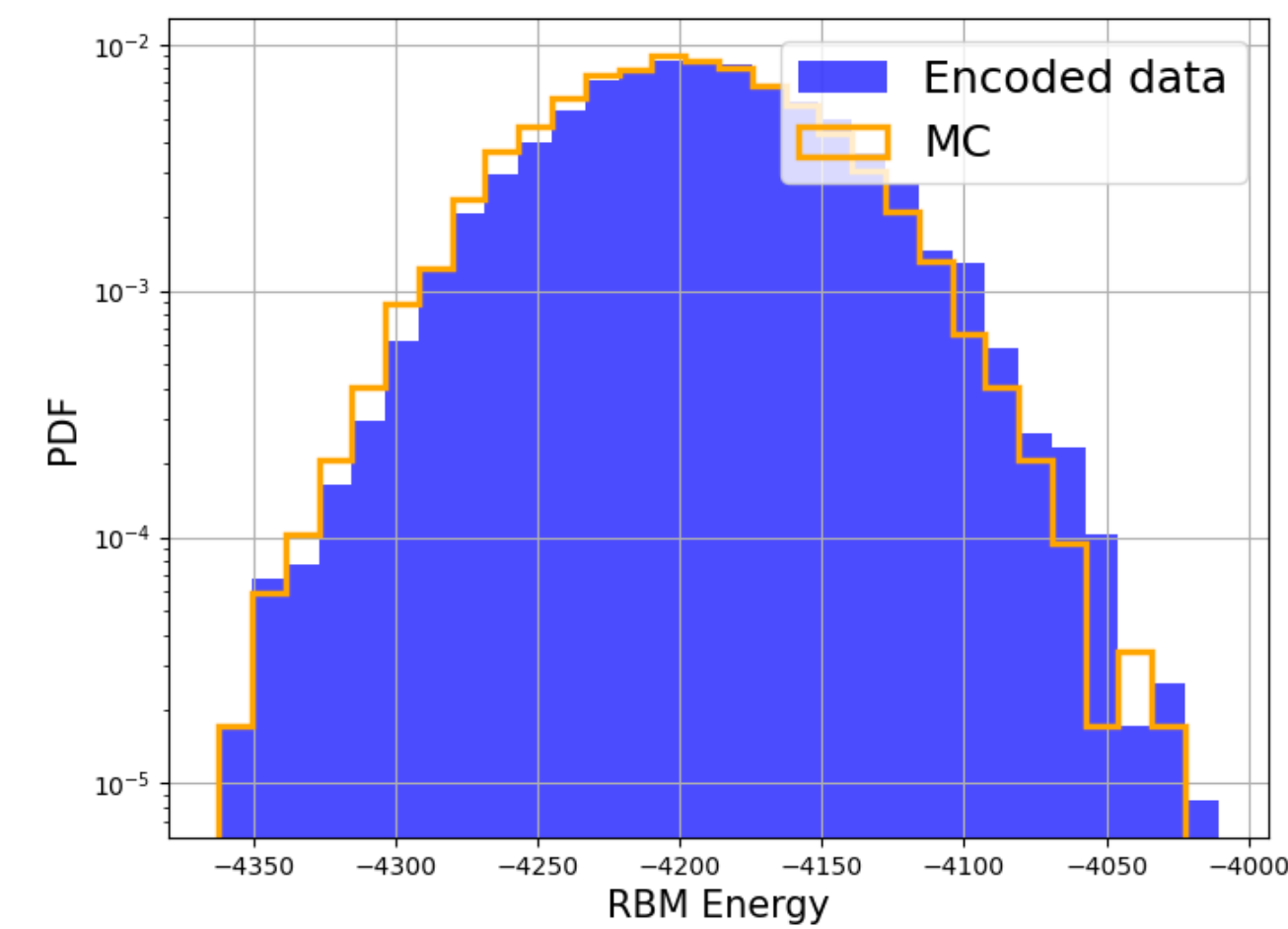
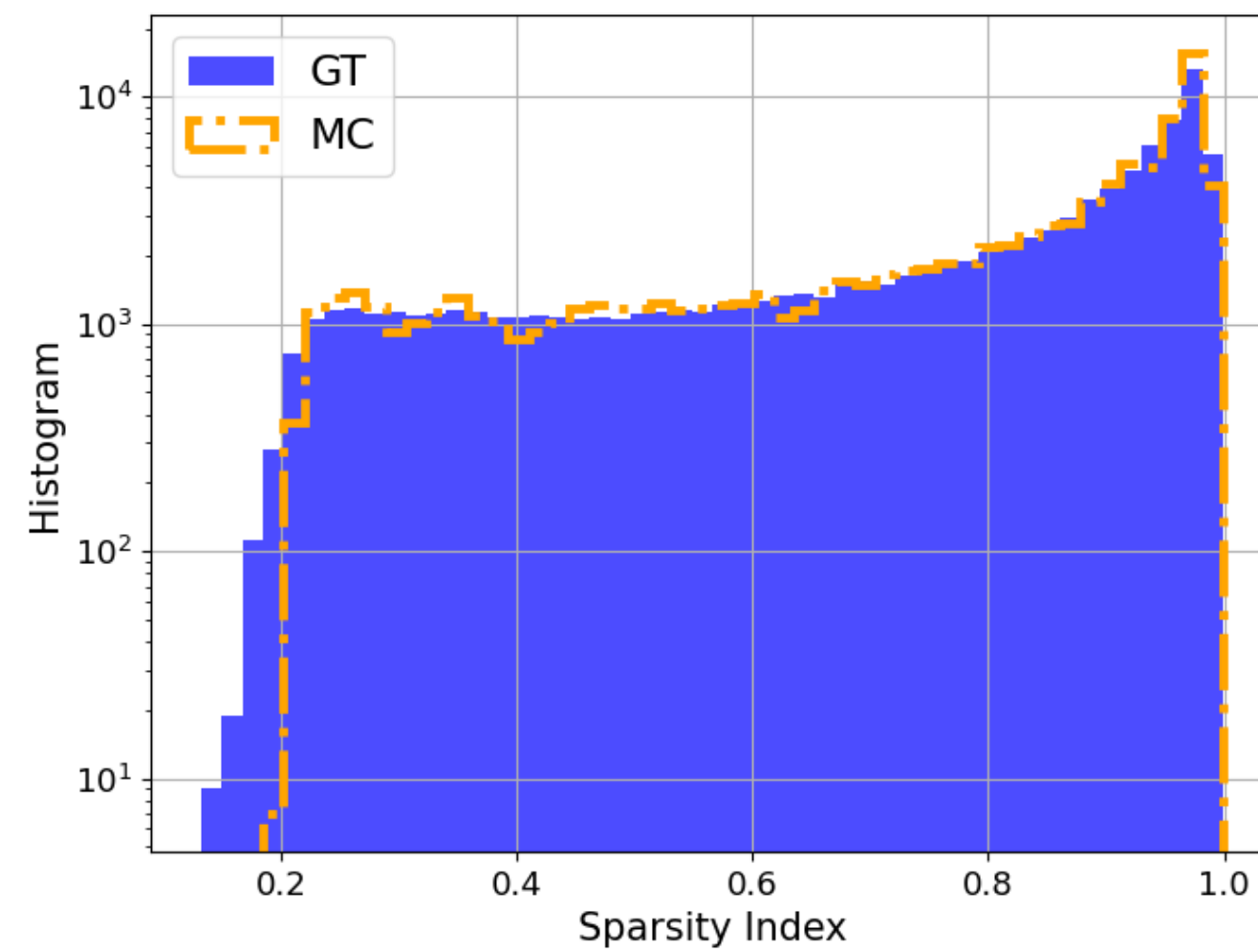
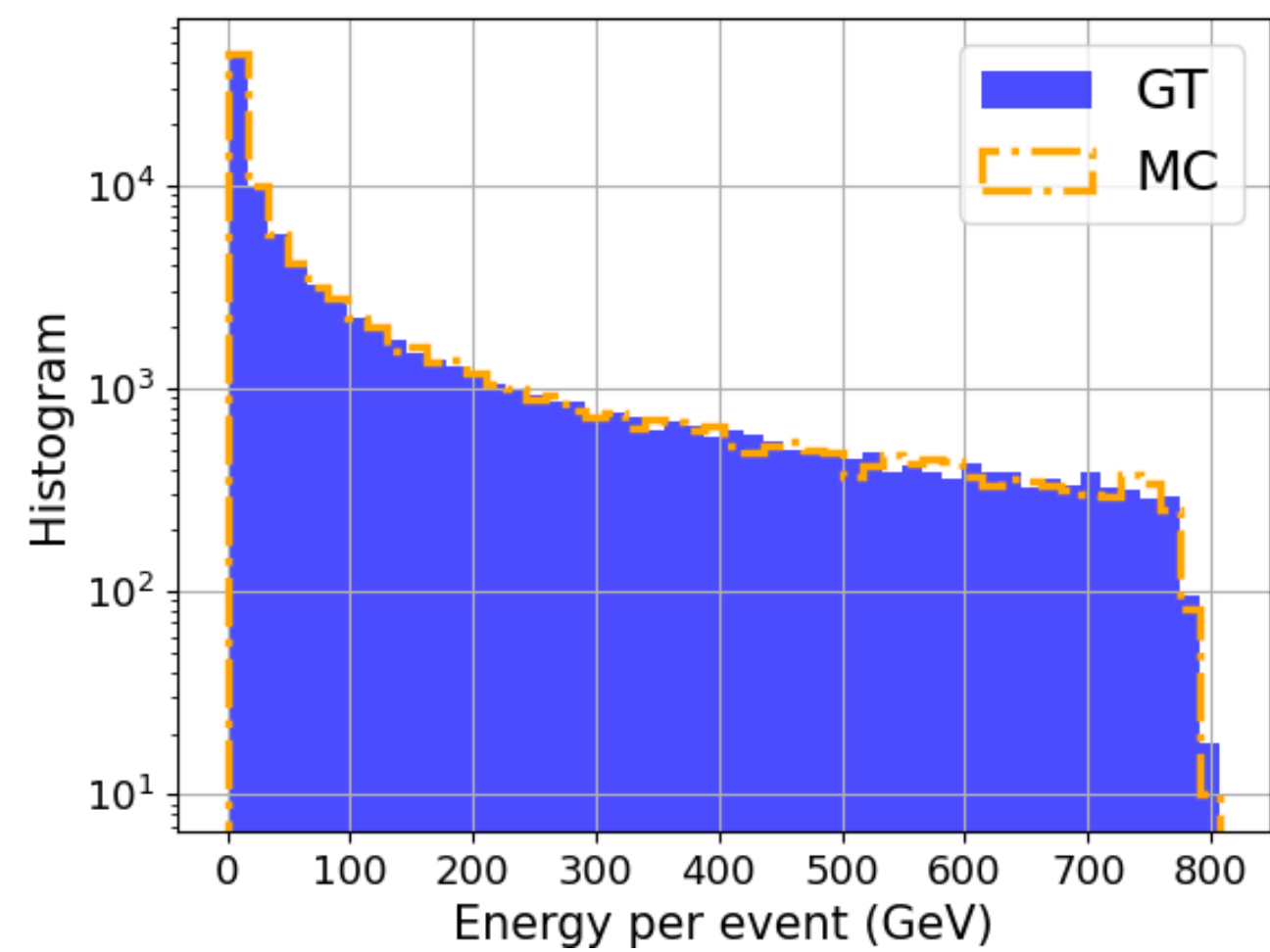
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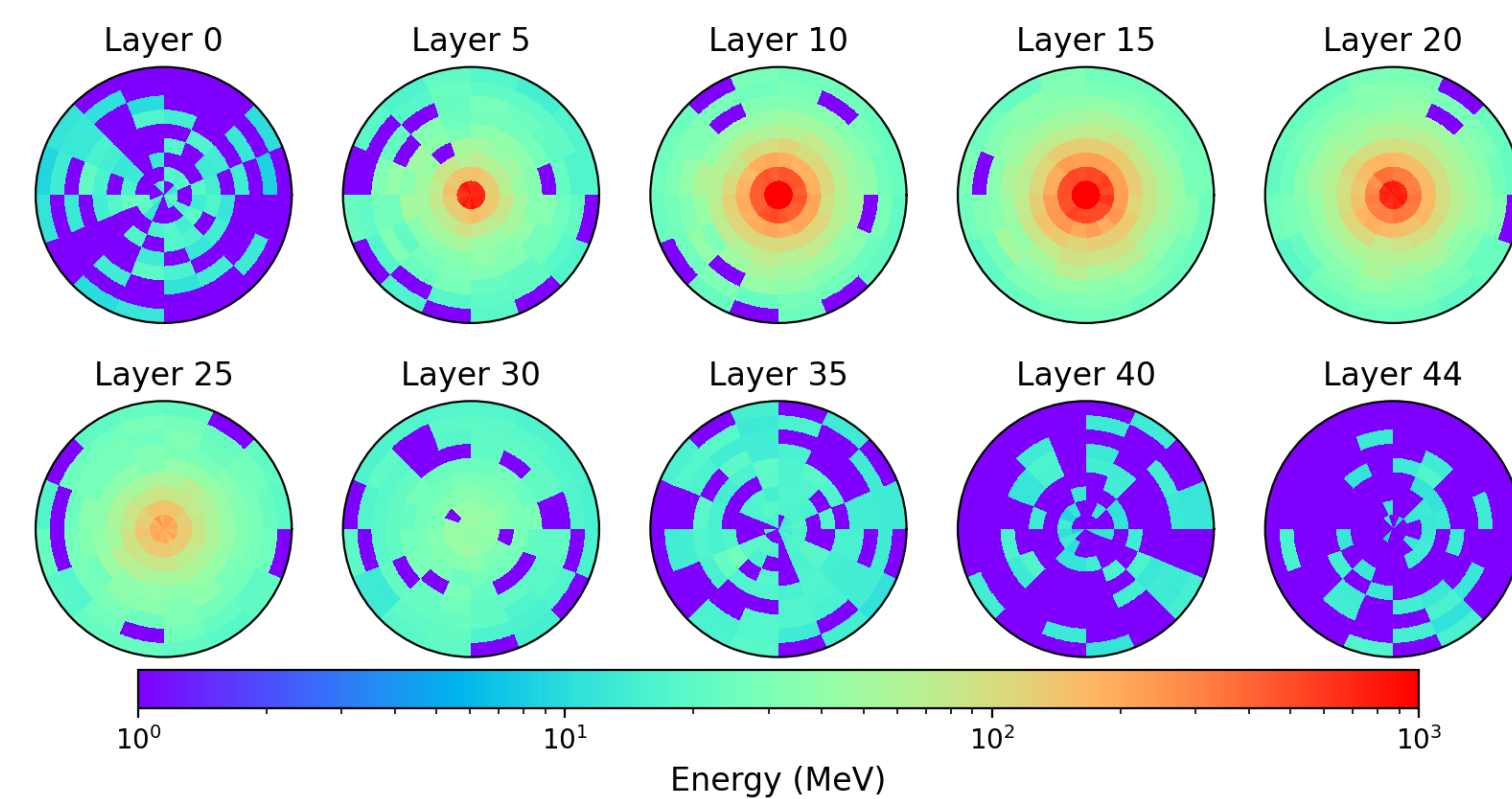
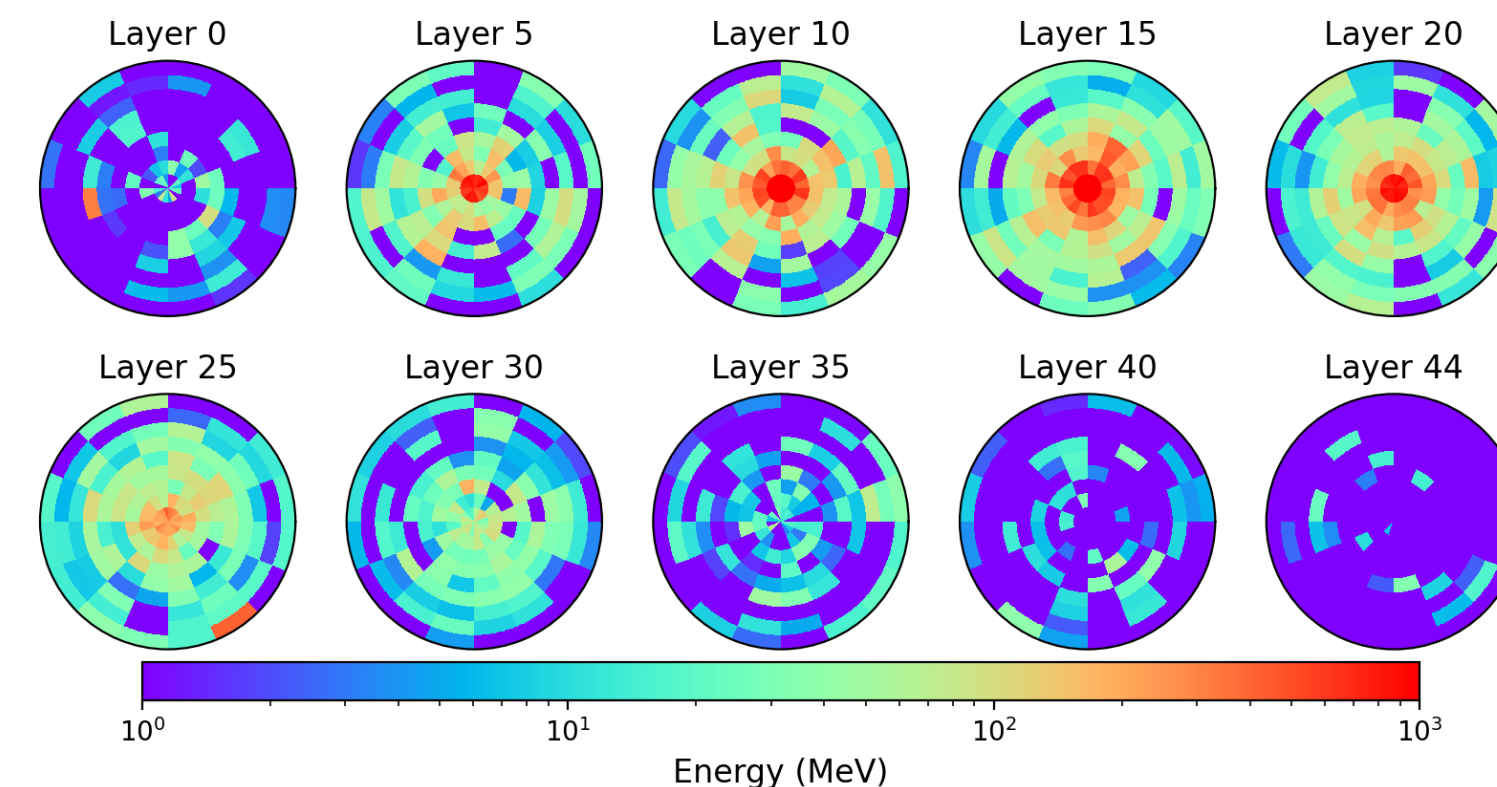
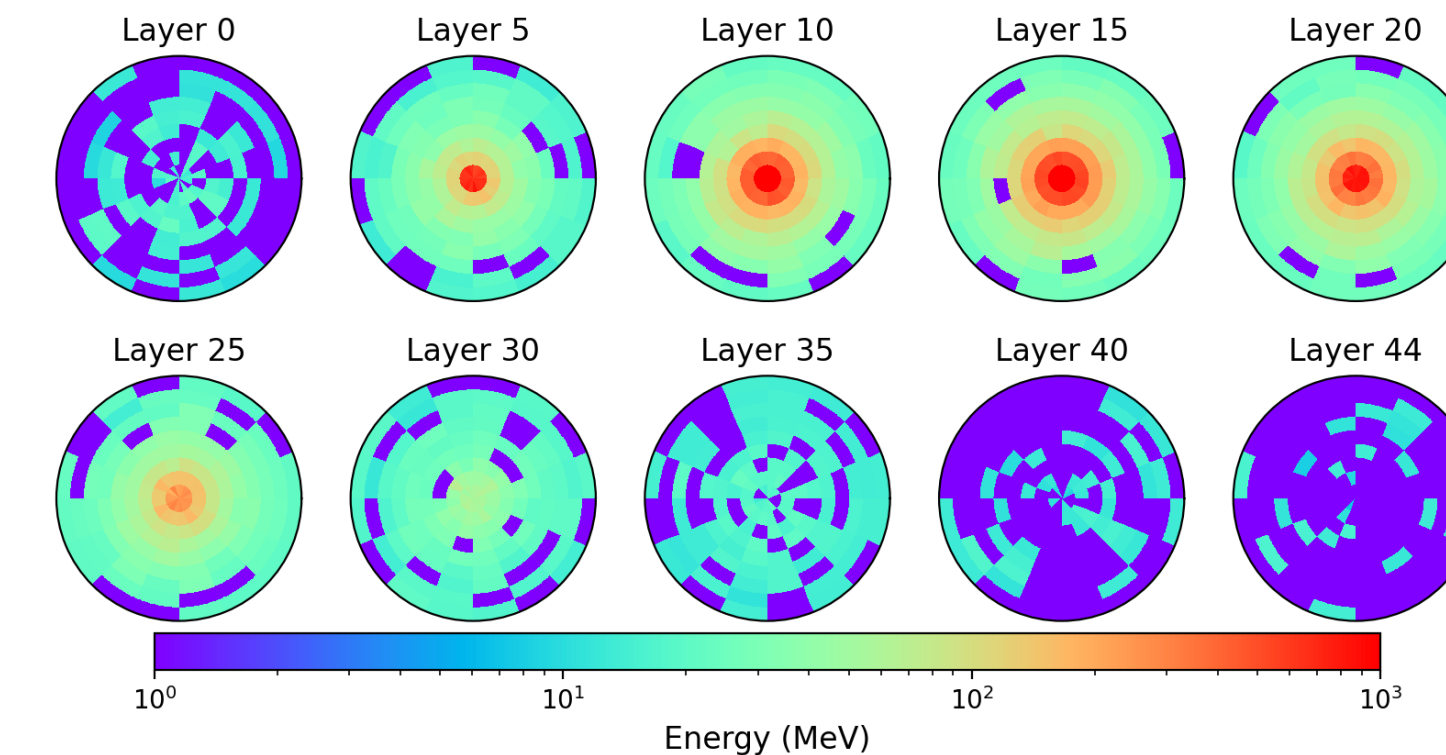
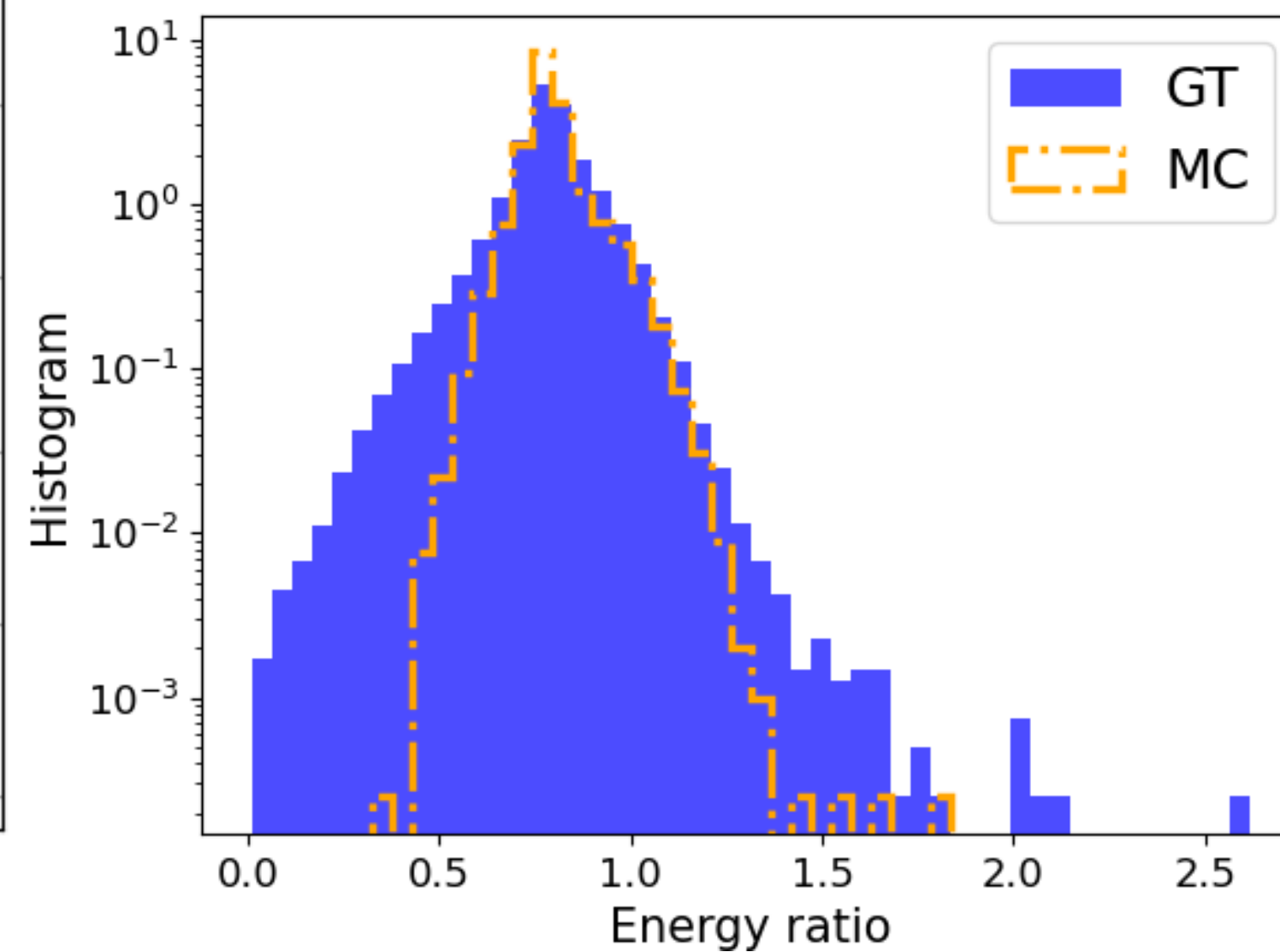
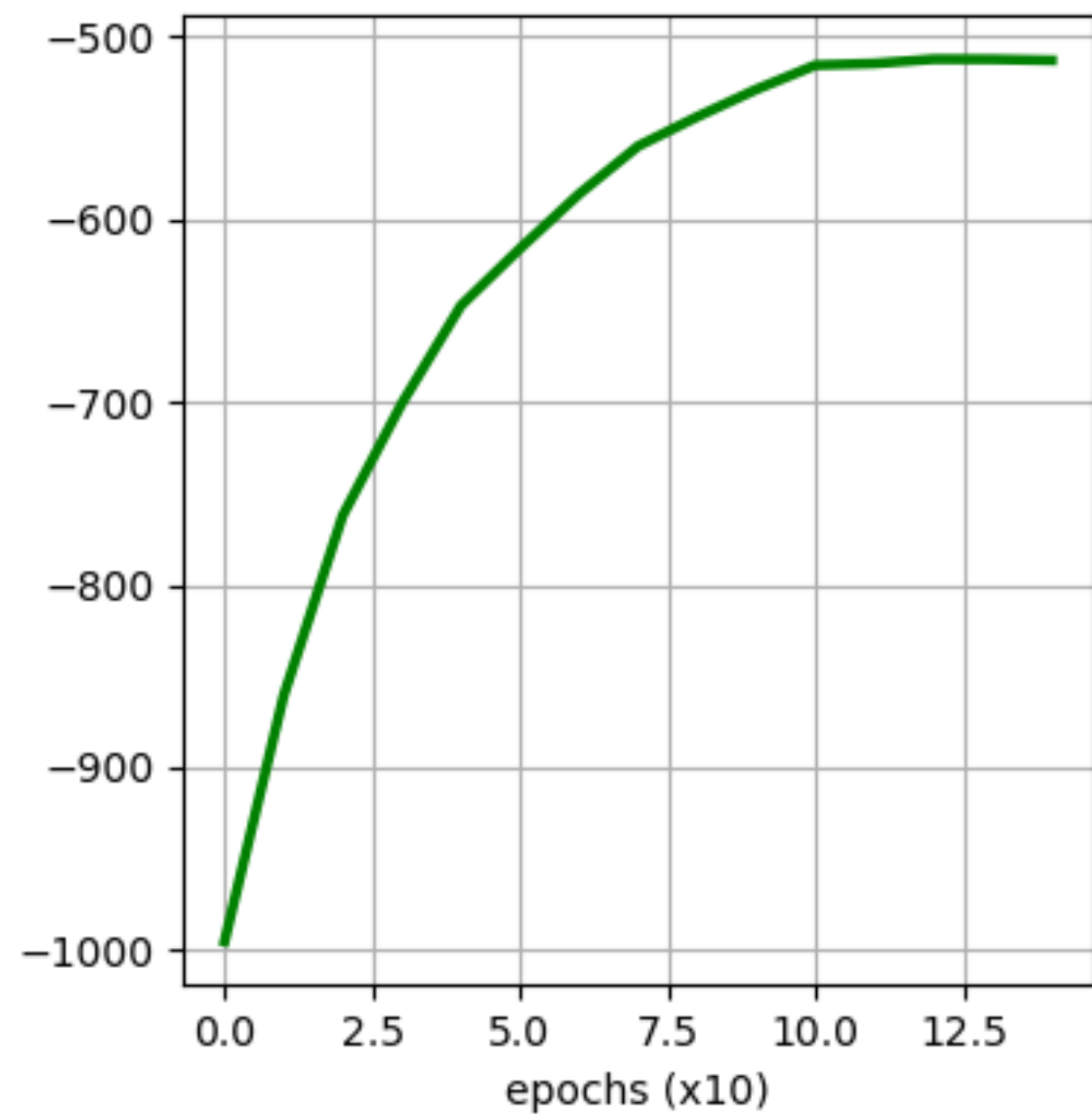
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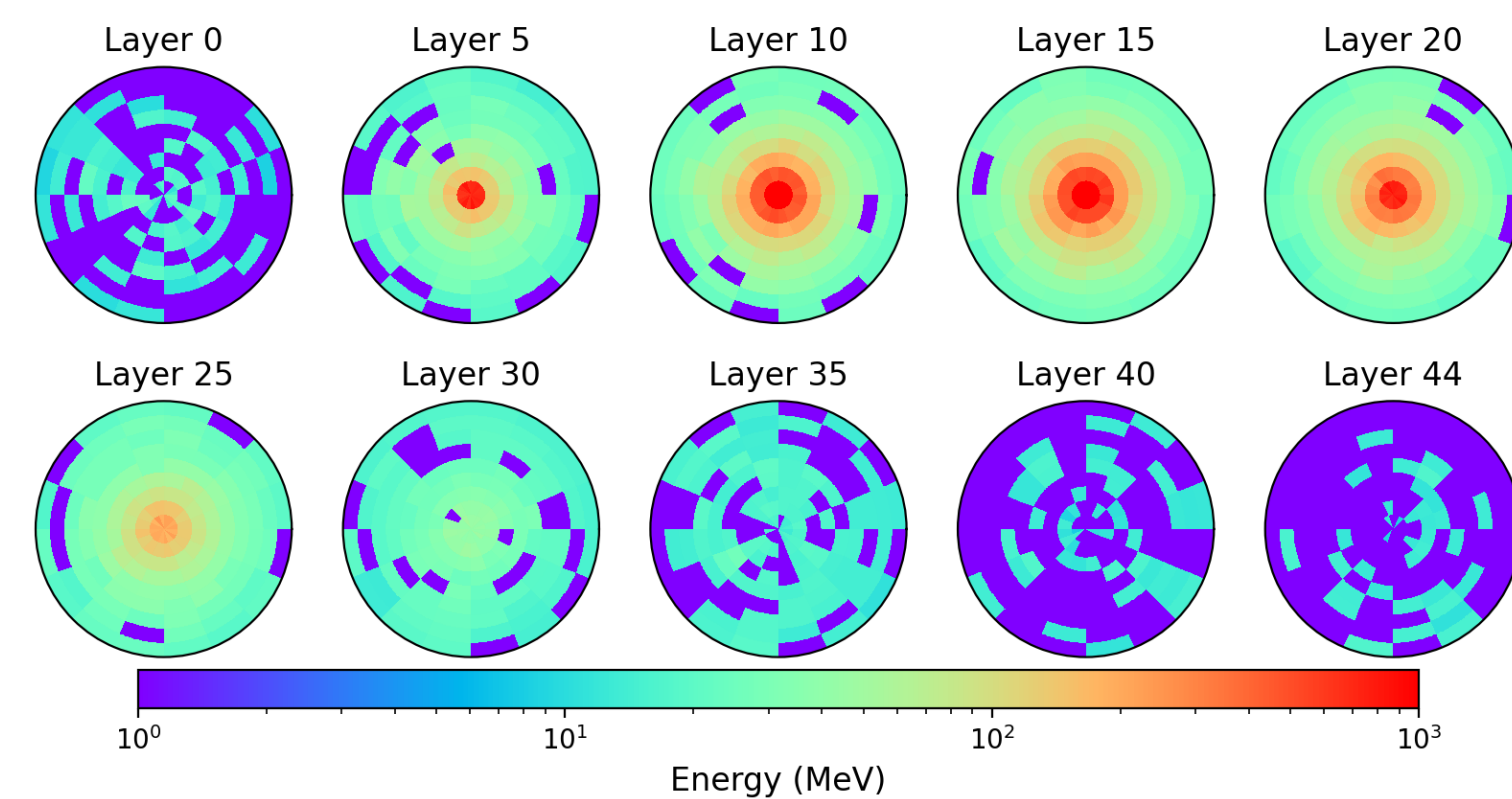
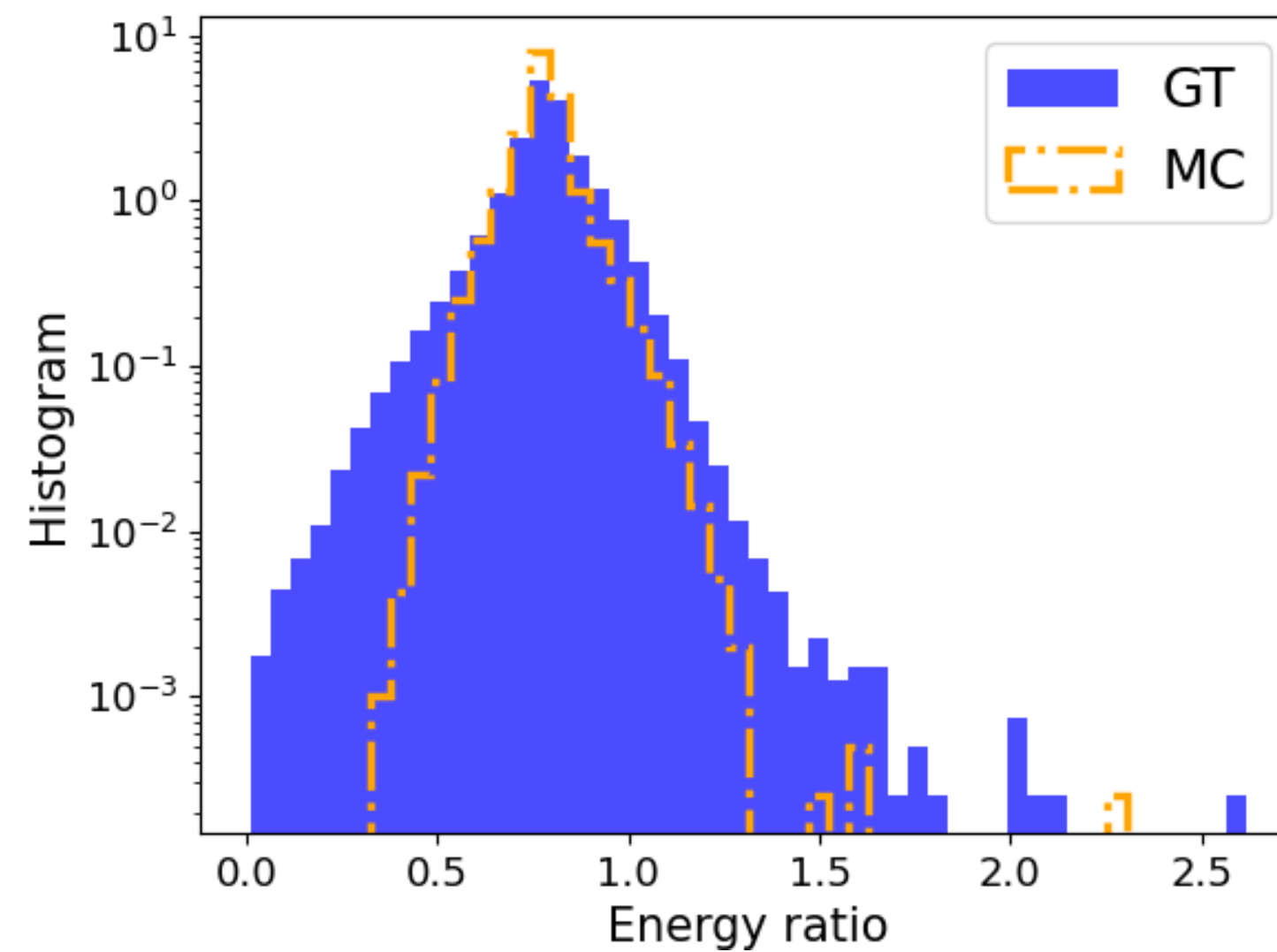
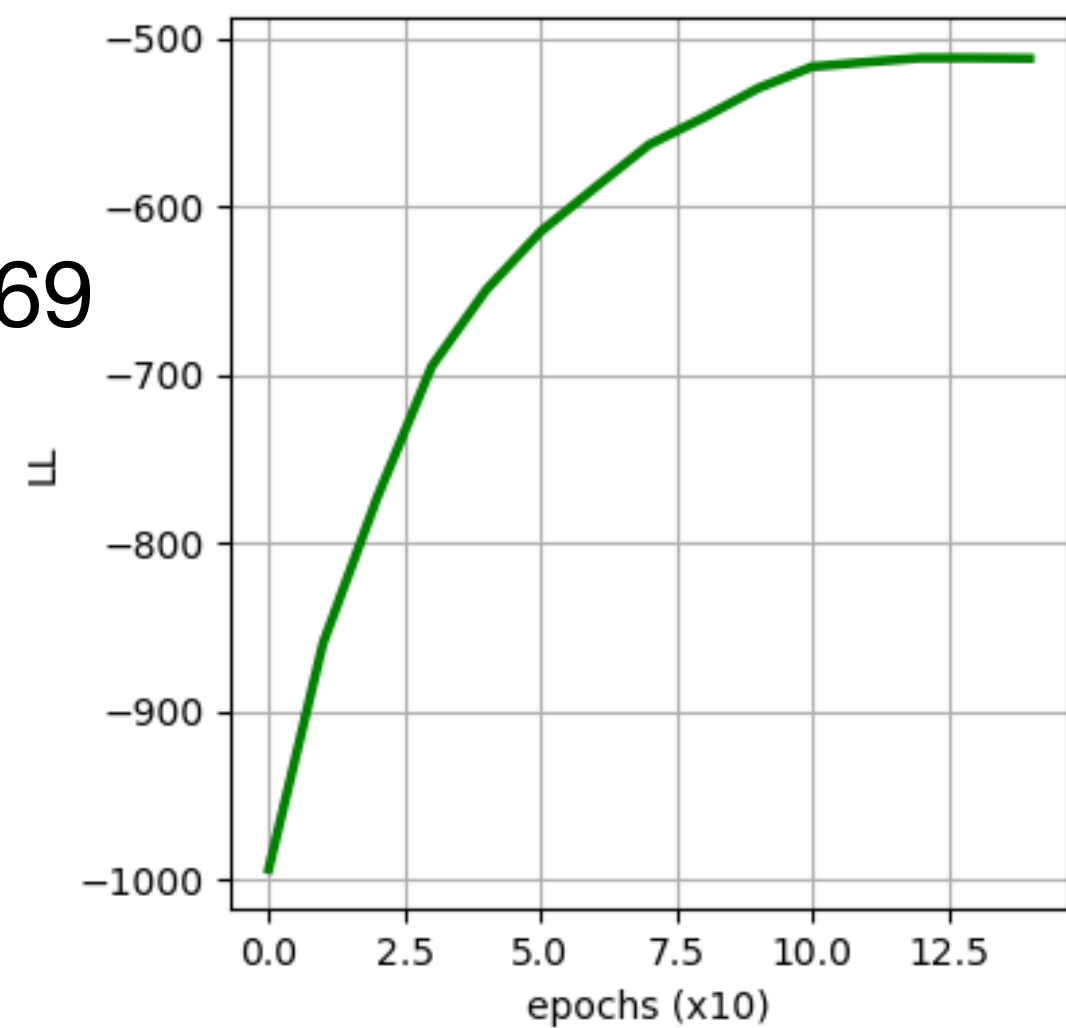
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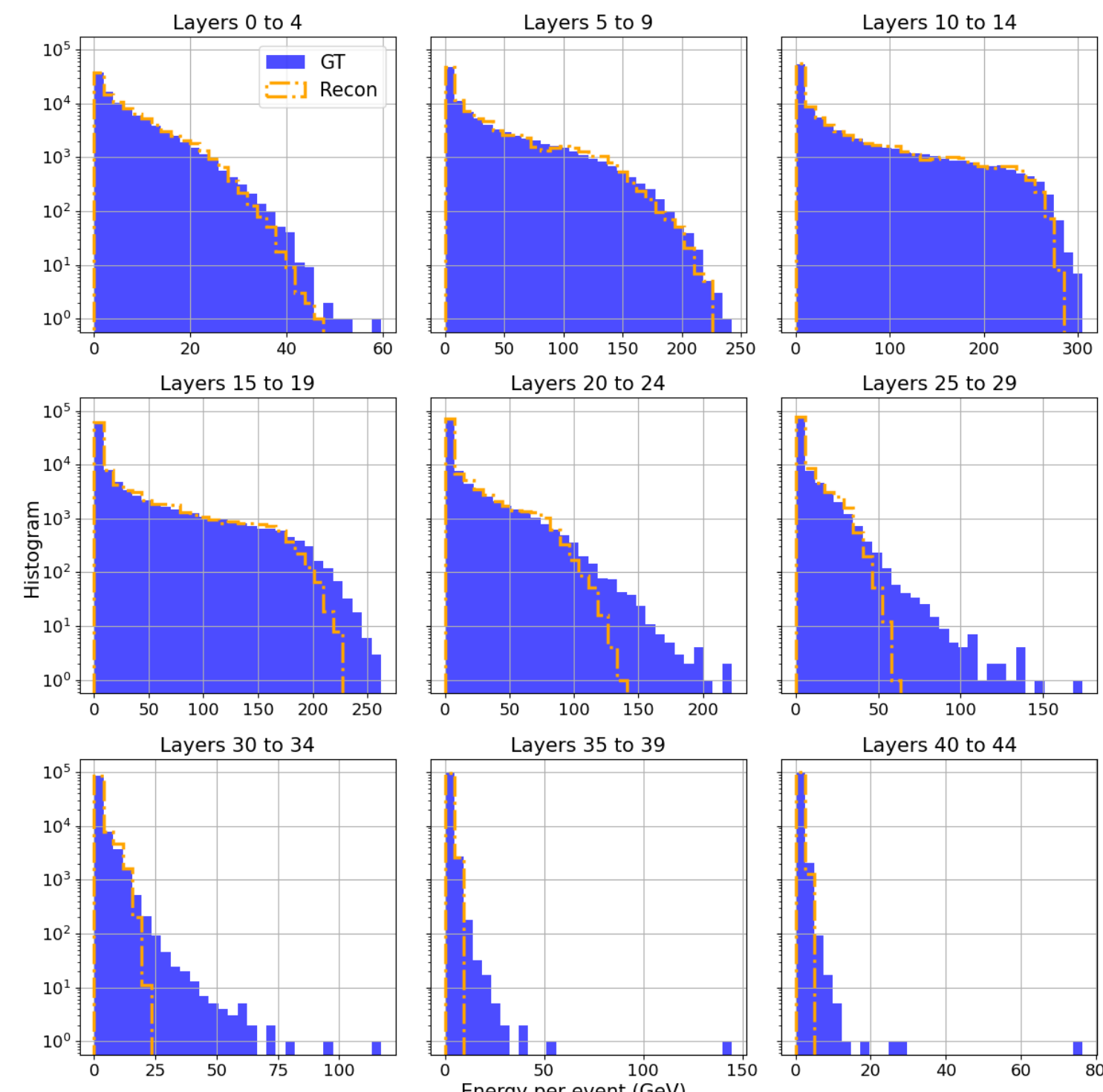
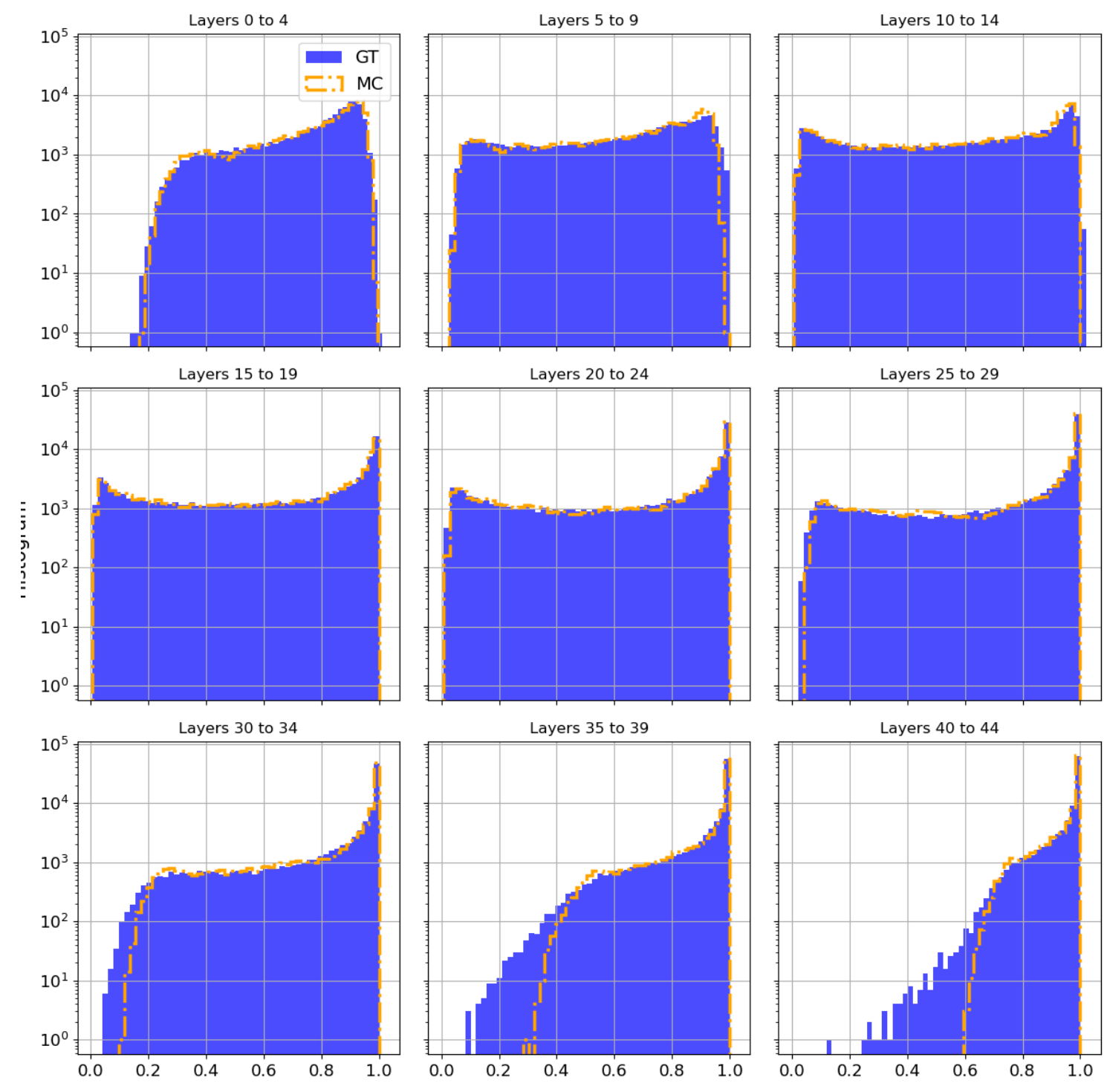
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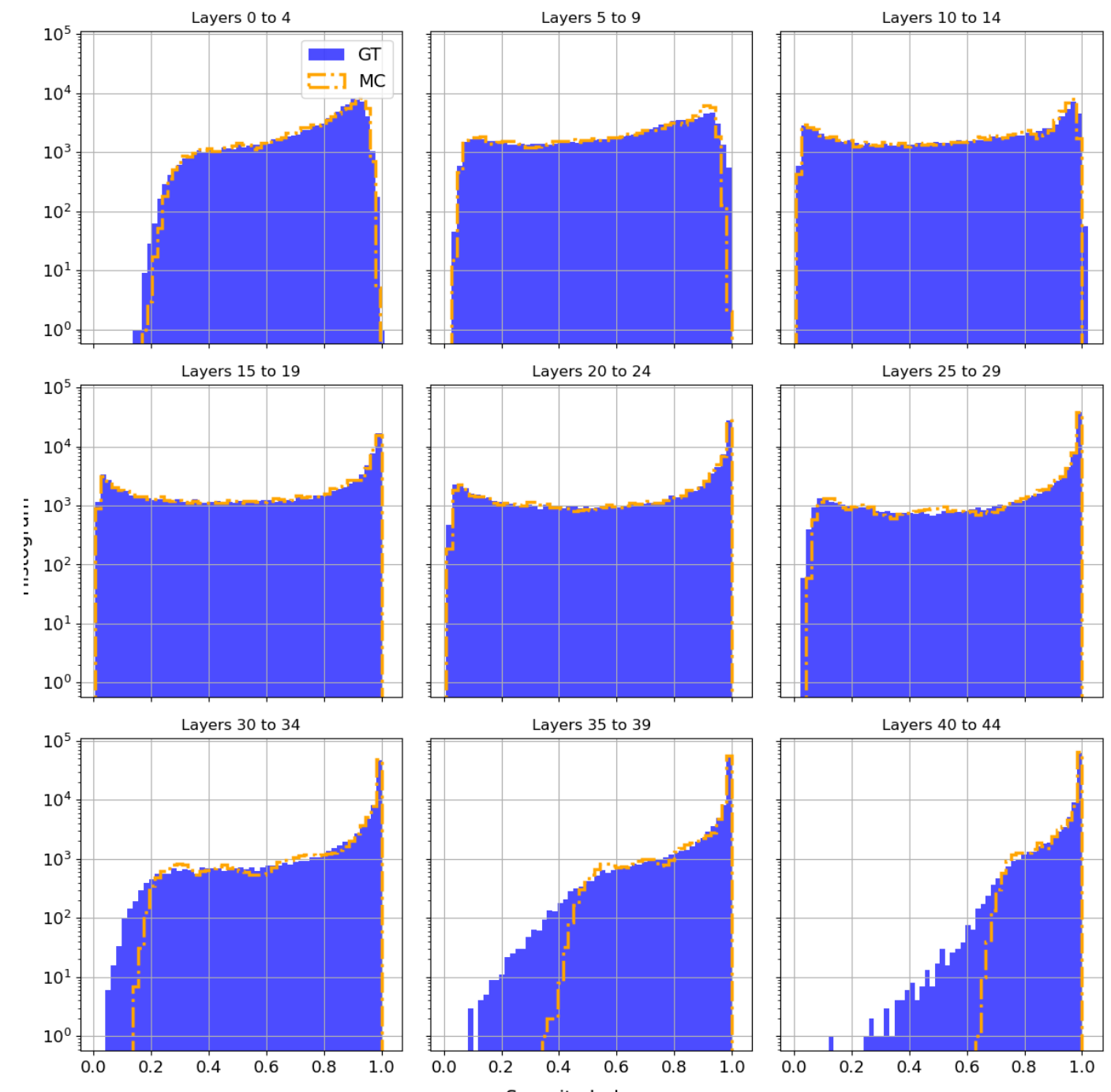
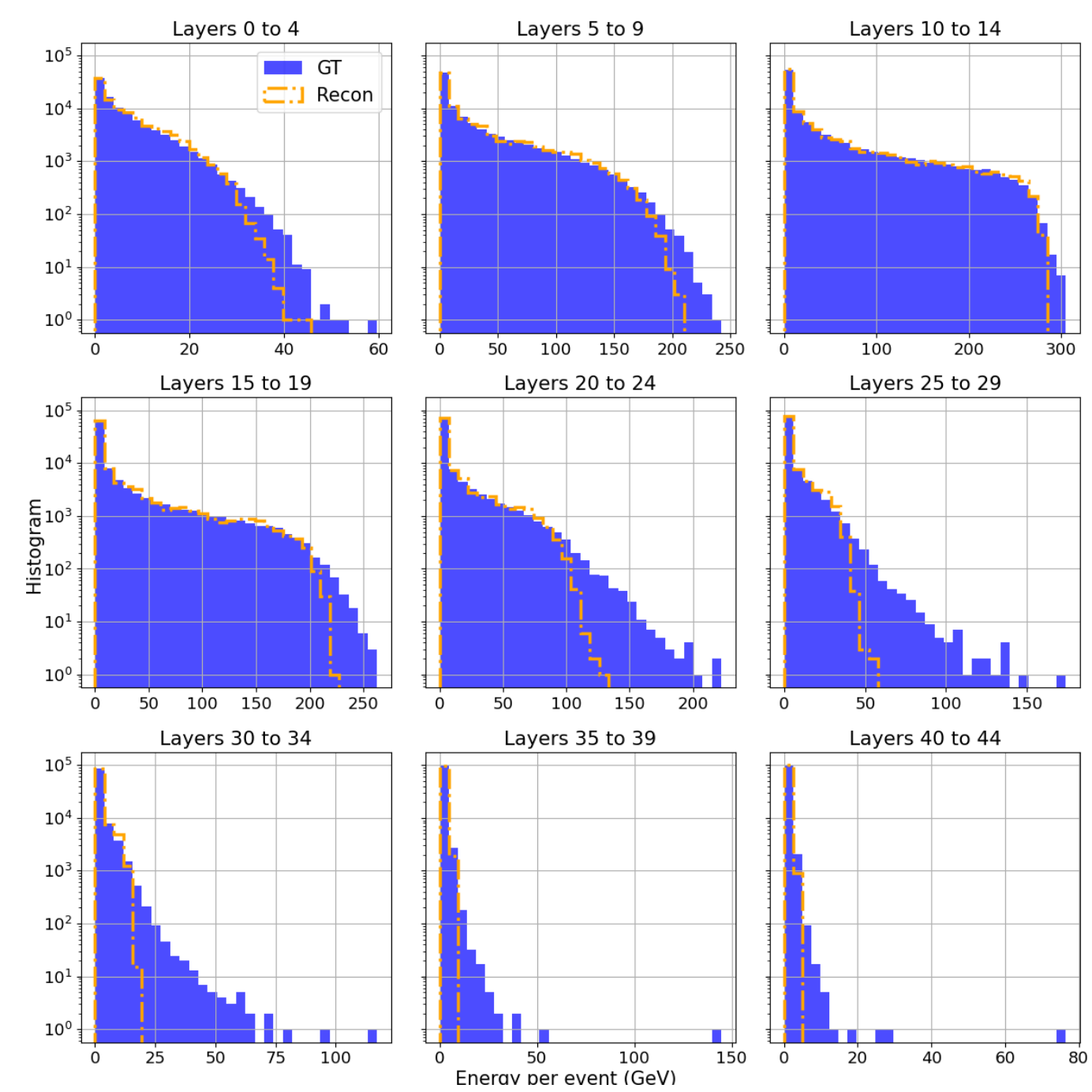
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Roadmap for papers

- IEEE Conf paper
 - Short paper 4pp max
 - 4-partite non-conditionalized RBM
 - Non-conditionalized Quantum-assisted CaloQVAE time benchmarks
 - QML deadline is July 17th. Abstract deadline: July 10th, 2024
 - QC for Nat Sci: Tech and App deadline is July 31st
 - Quantum Artificial Intelligence: By invitation
- PRX will include:
 - PBC NN architecture
 - ~~Non-conditionalized CaloQVAE on Pegasus.~~
 - Temp estimation via new mapping
 - 4-partite RBM
 - Non-conditionalized Quantum-assisted CaloQVAE time benchmarks
 - Conditionalized RBM
 - QPU conditionalized using flux biases
 - Discussion: Hierarchical decoder, PB to account for voxel's neighbours in inner cylinder, gray code, noise related stuff, zephyr
- Next paper (maybe conf paper? Neurips?):
 - Hierarchical decoder, PB to account for voxel's neighbours in inner cylinder, gray code, noise related stuff, zephyr
 - Maybe also dataset 1 and/or 3
- ATLAS paper