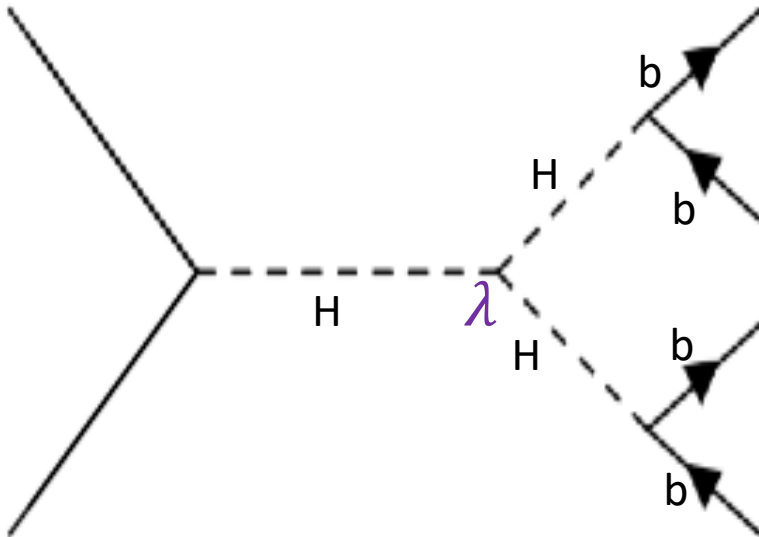


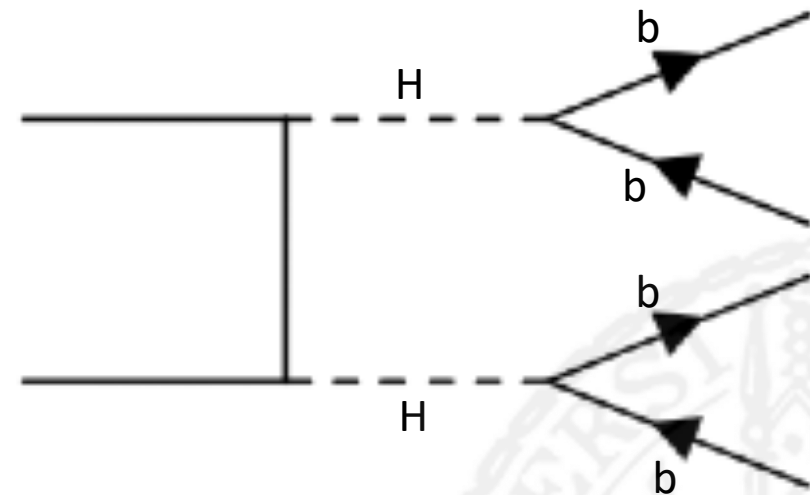
HH->bbbb



Goal: Distinguish between process with and without Higgs self-coupling

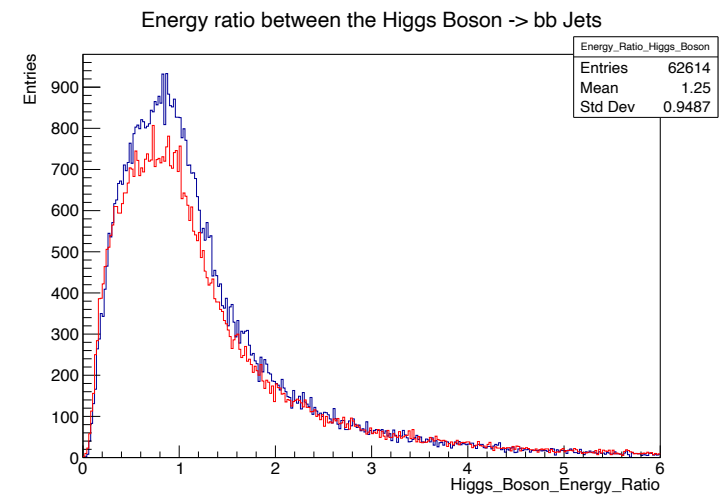
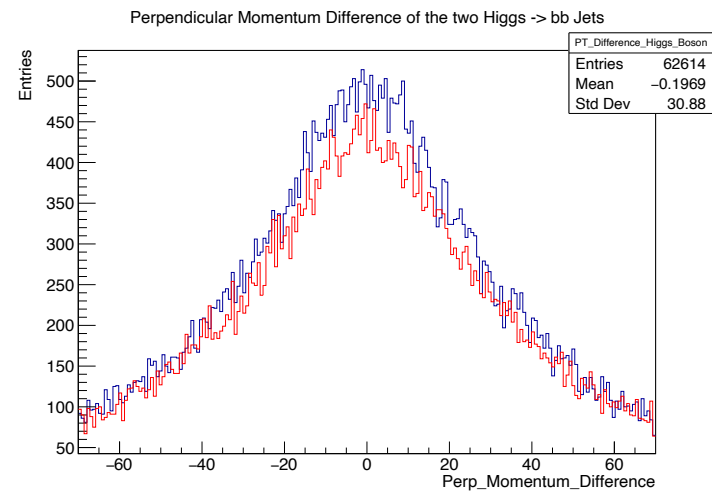
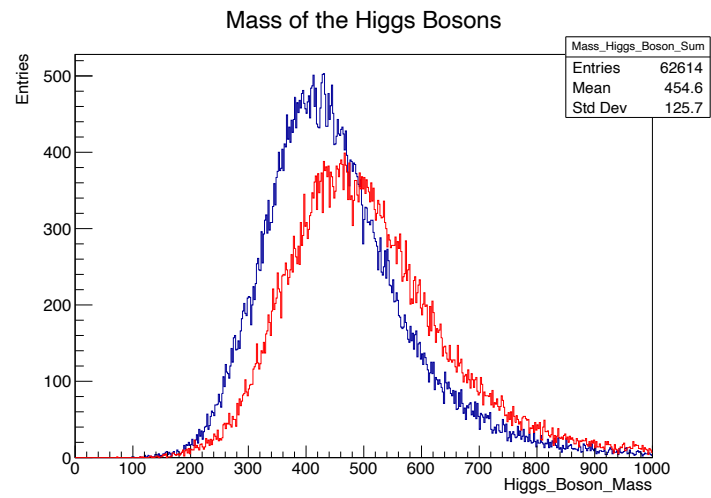


Feynman Diagram of collision process with Higgs self-coupling



Feynman Diagram of collision process without Higgs self-coupling

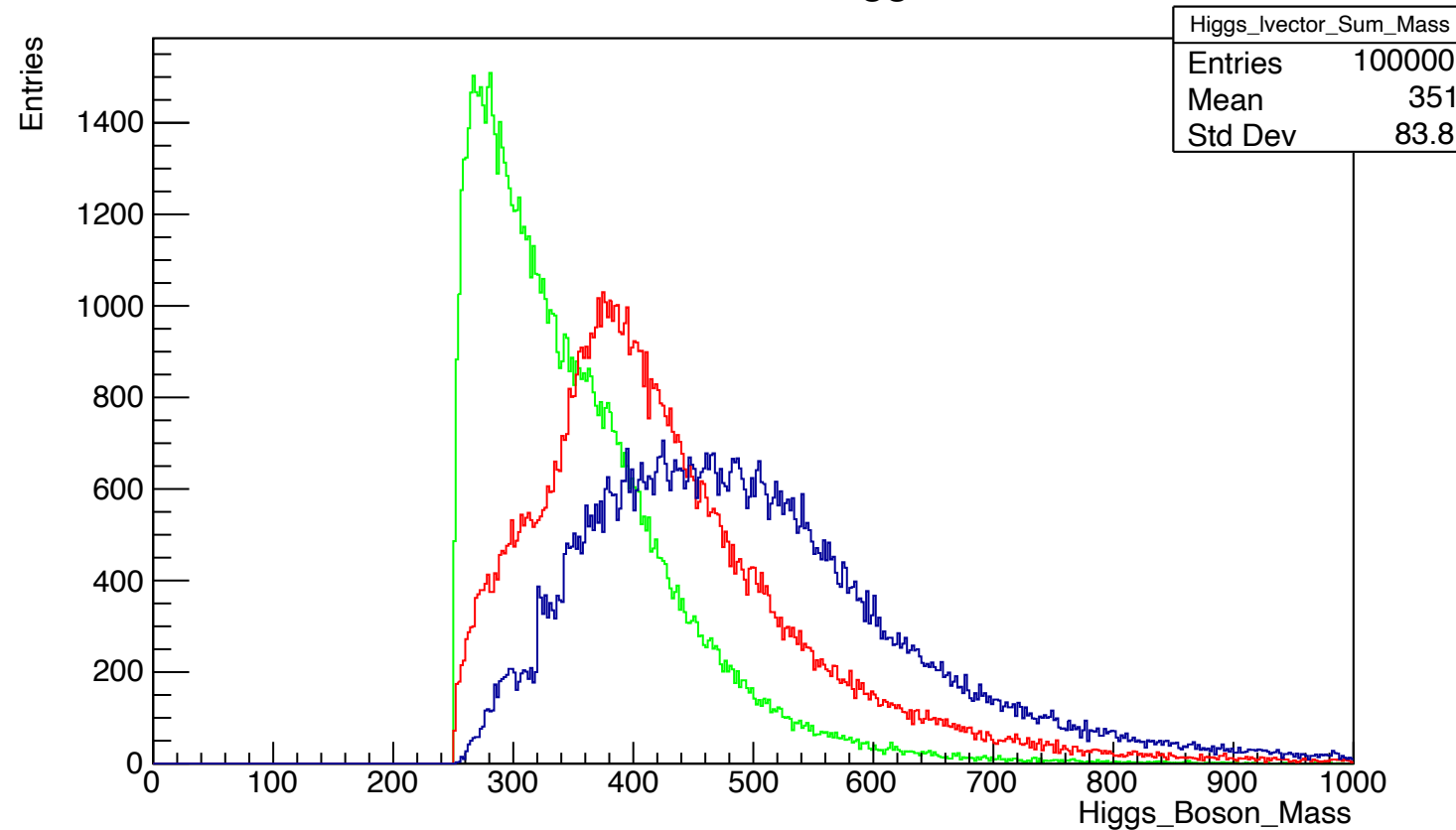
Data Quality



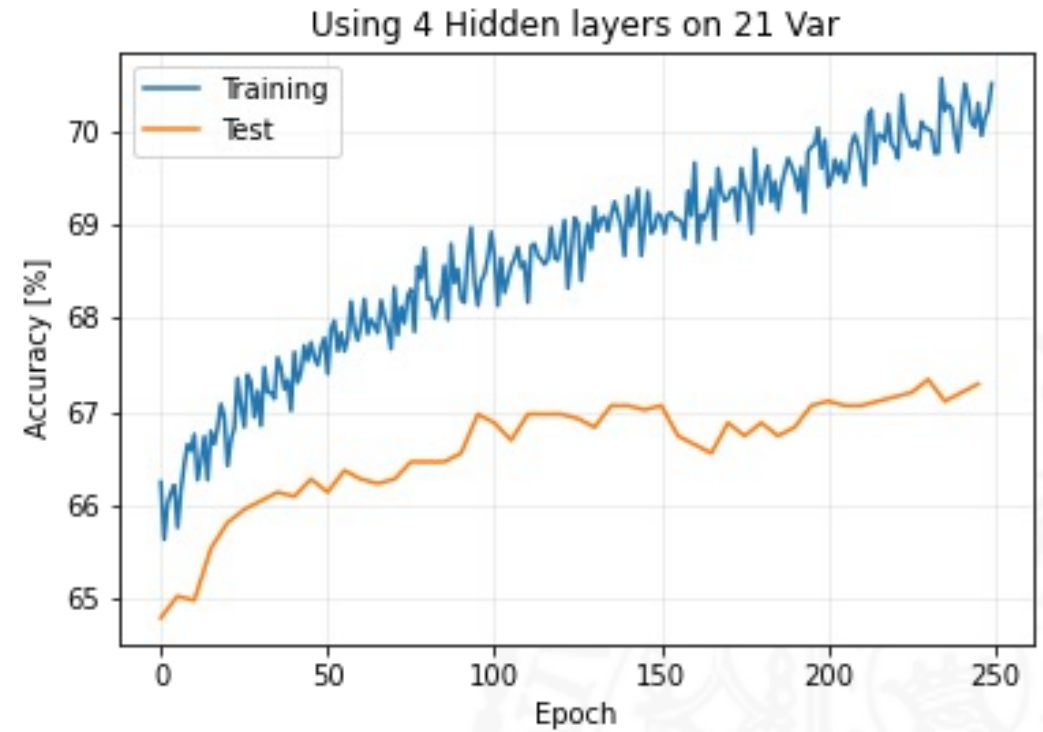
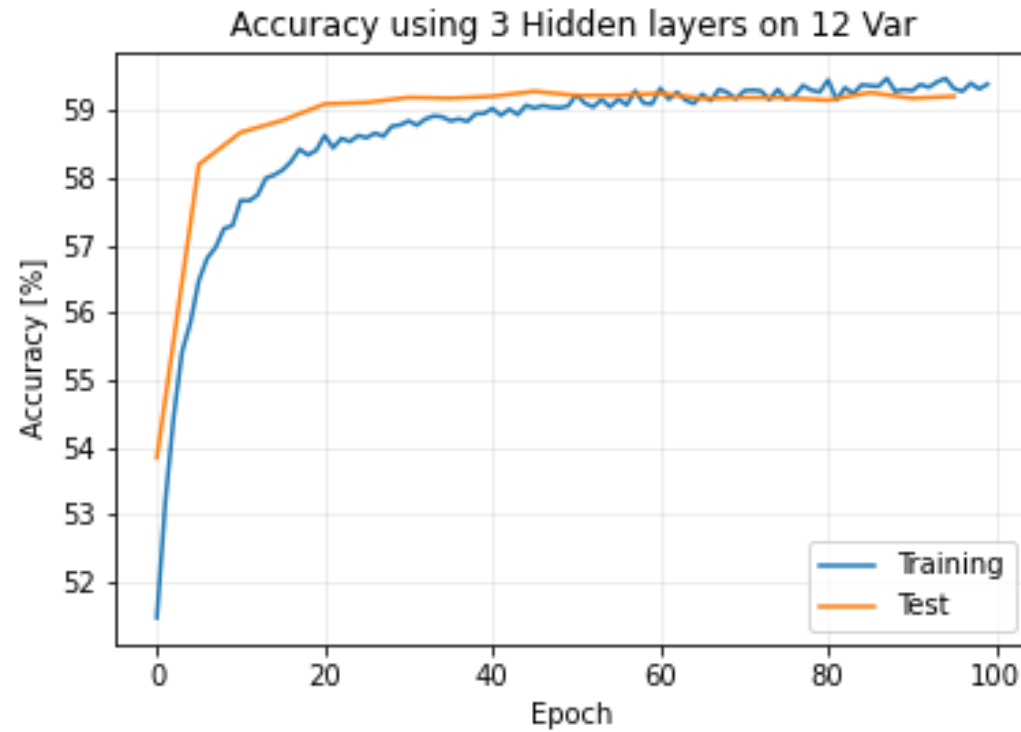
Data Quality



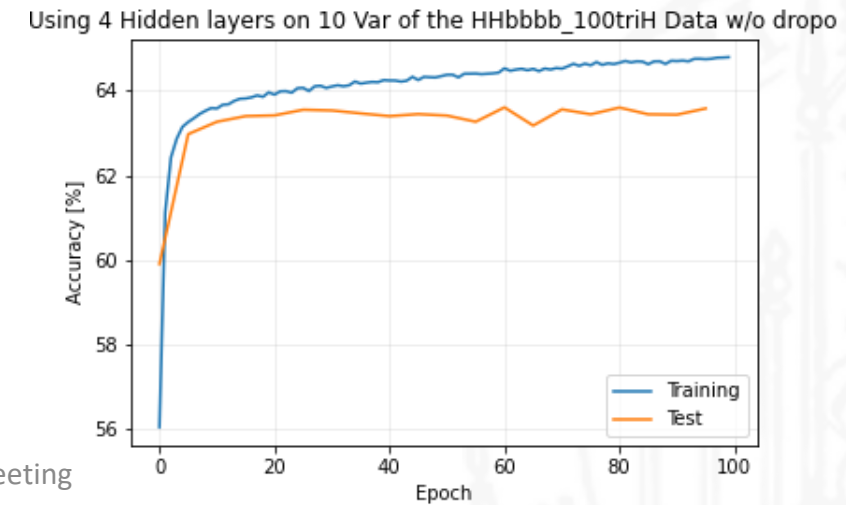
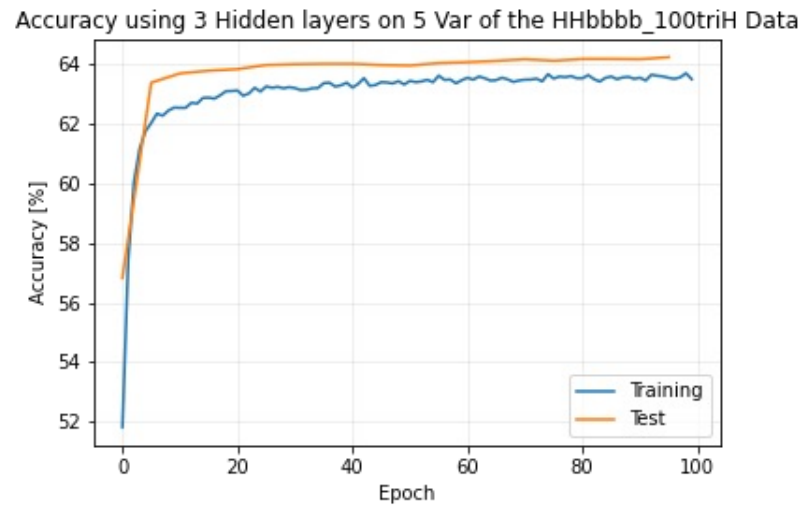
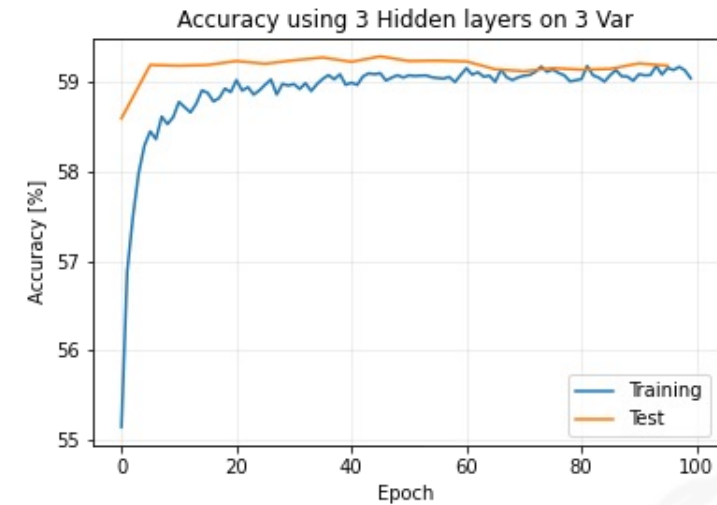
Mass of the Sum of the two Higgs Lorentzvectors



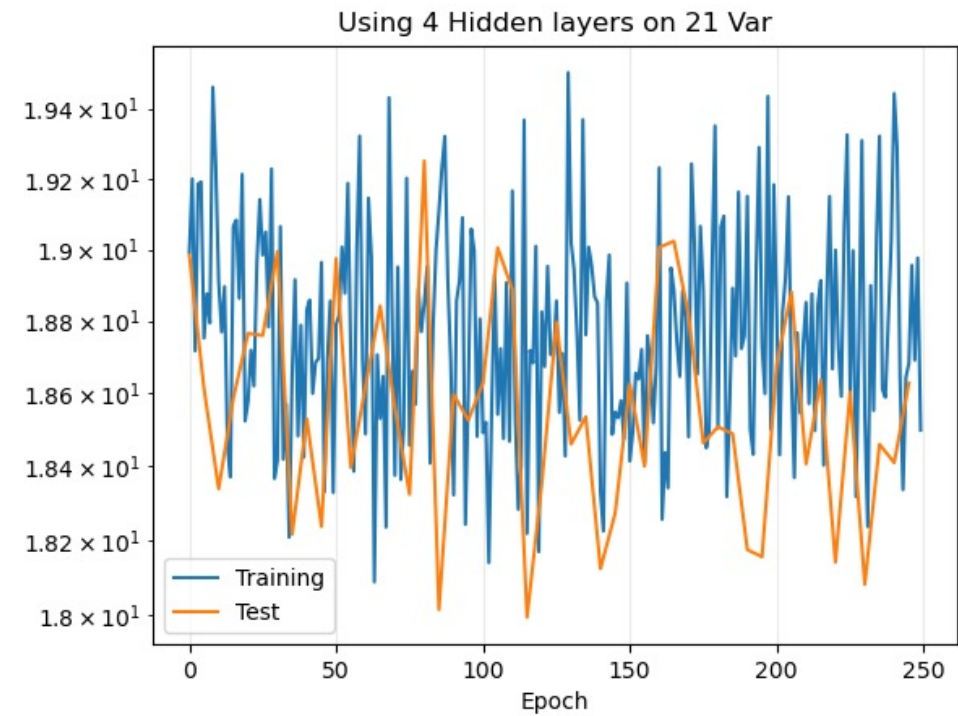
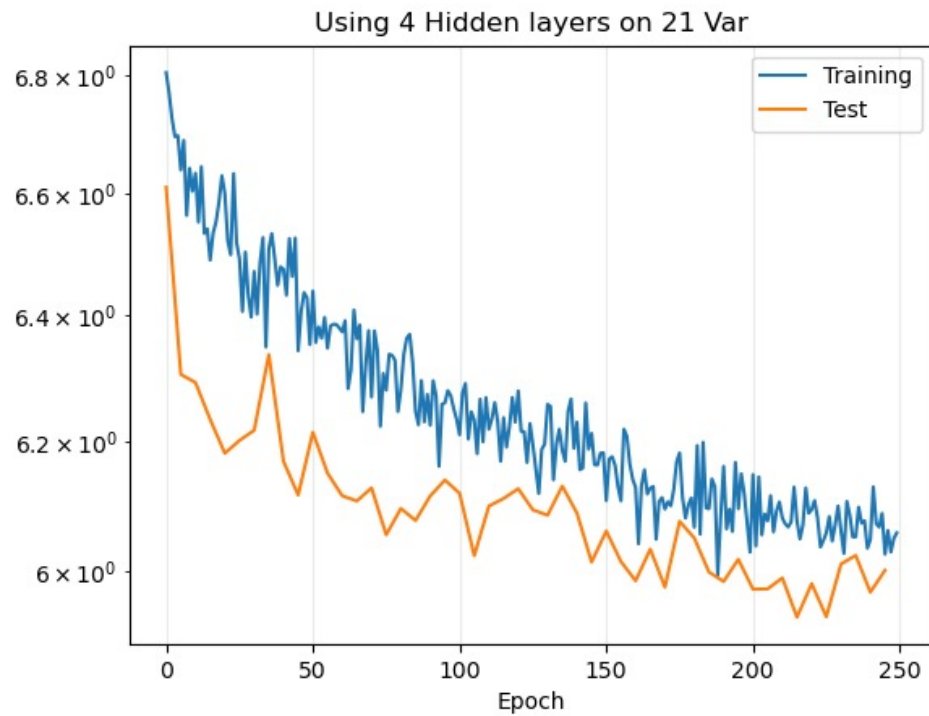
Progress



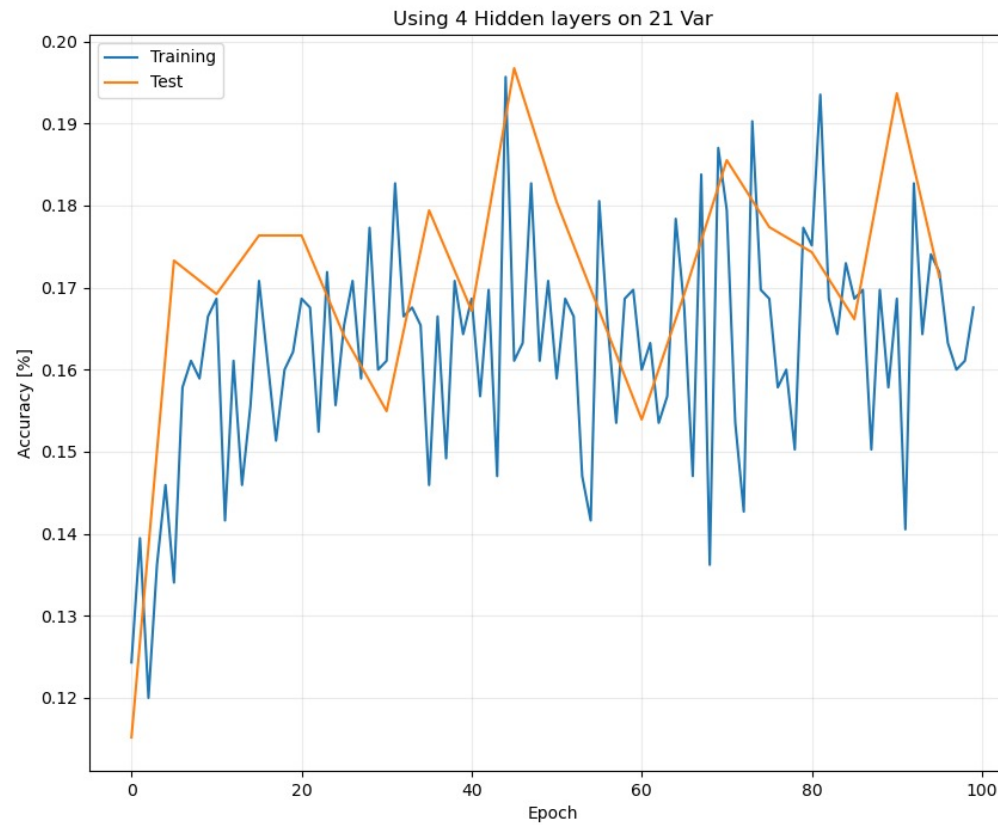
Number of Variables



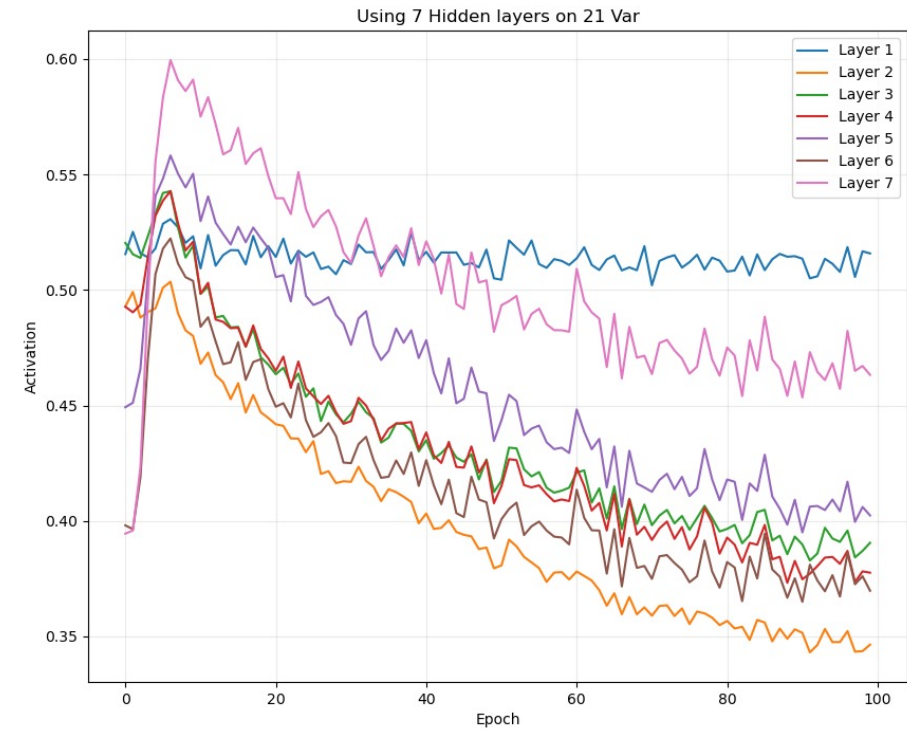
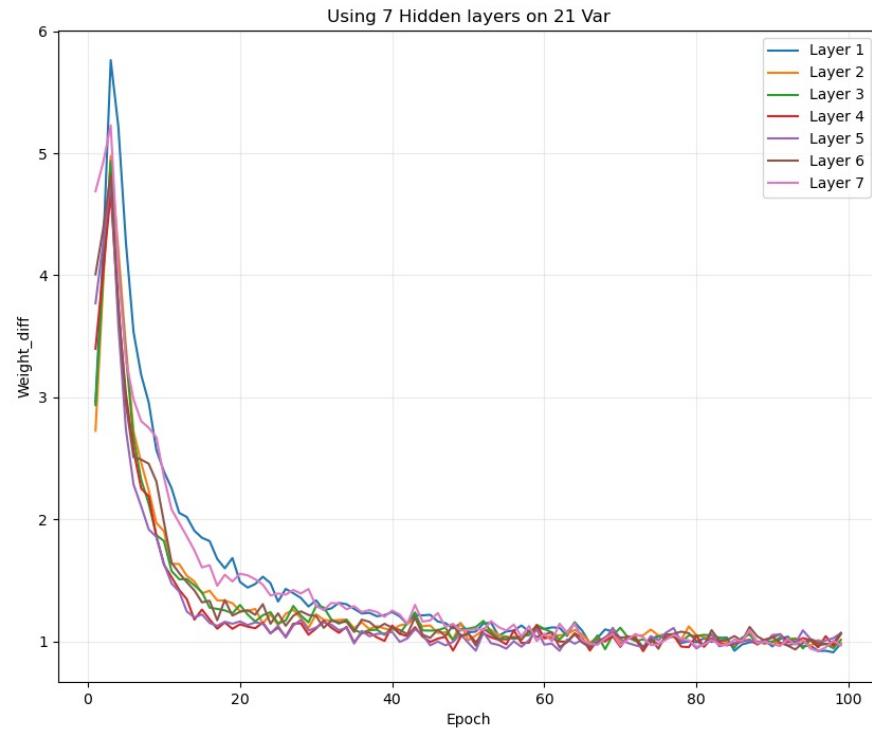
Self-Coupling Constant Factor Prediction



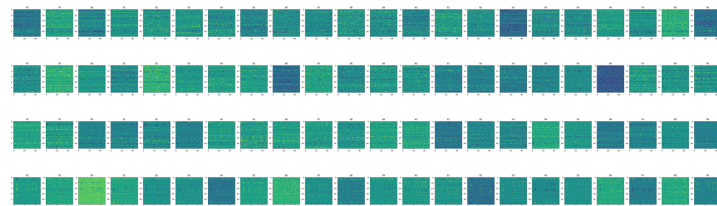
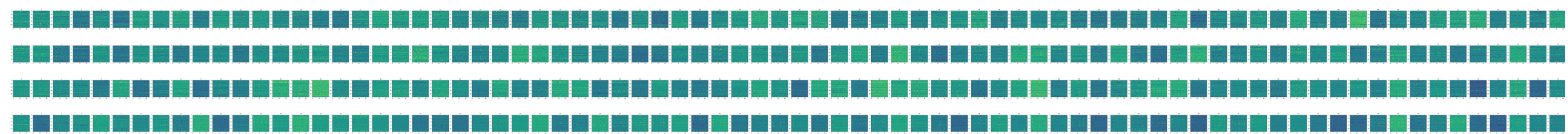
10 Category Classification



10 Category Network Analysis



4 Layer Gradients



Next Steps



- Finalize Neural Network insights
 - Use insights to optimize hyperparameters for Multiclass Categorization
- Analyze network dependence on input variables

