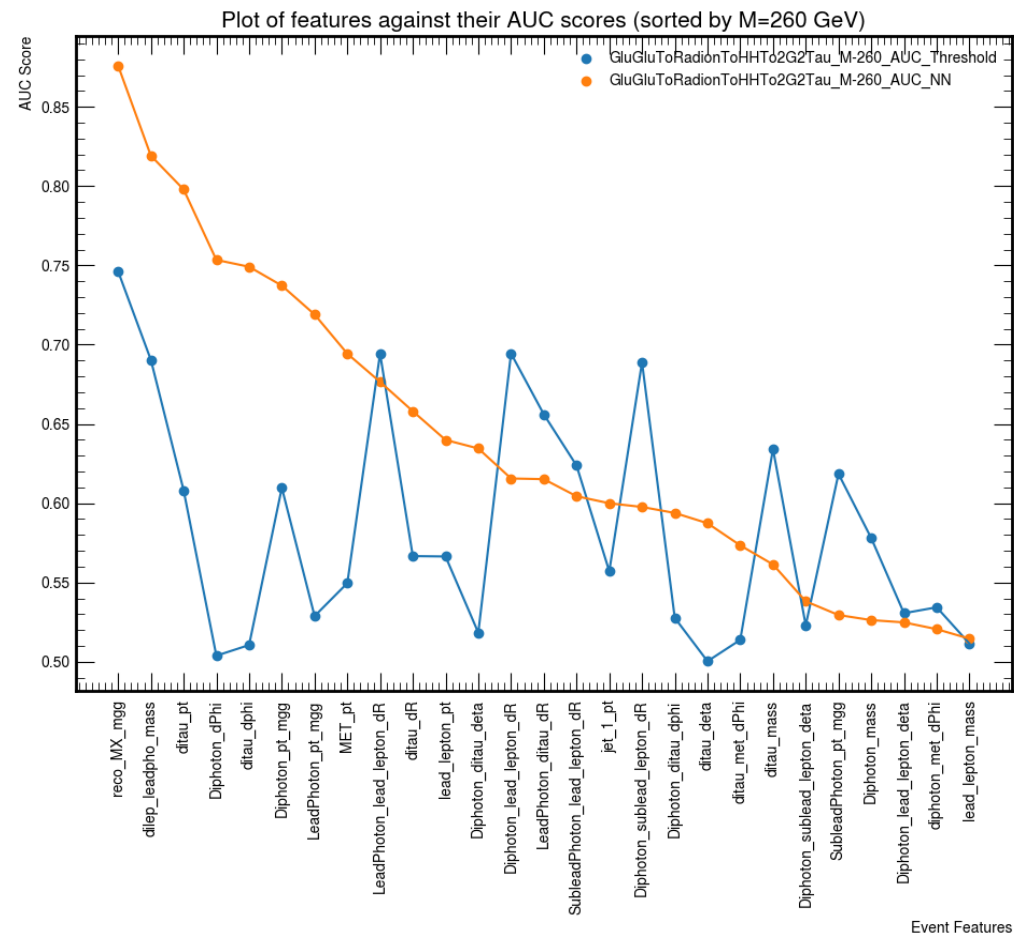
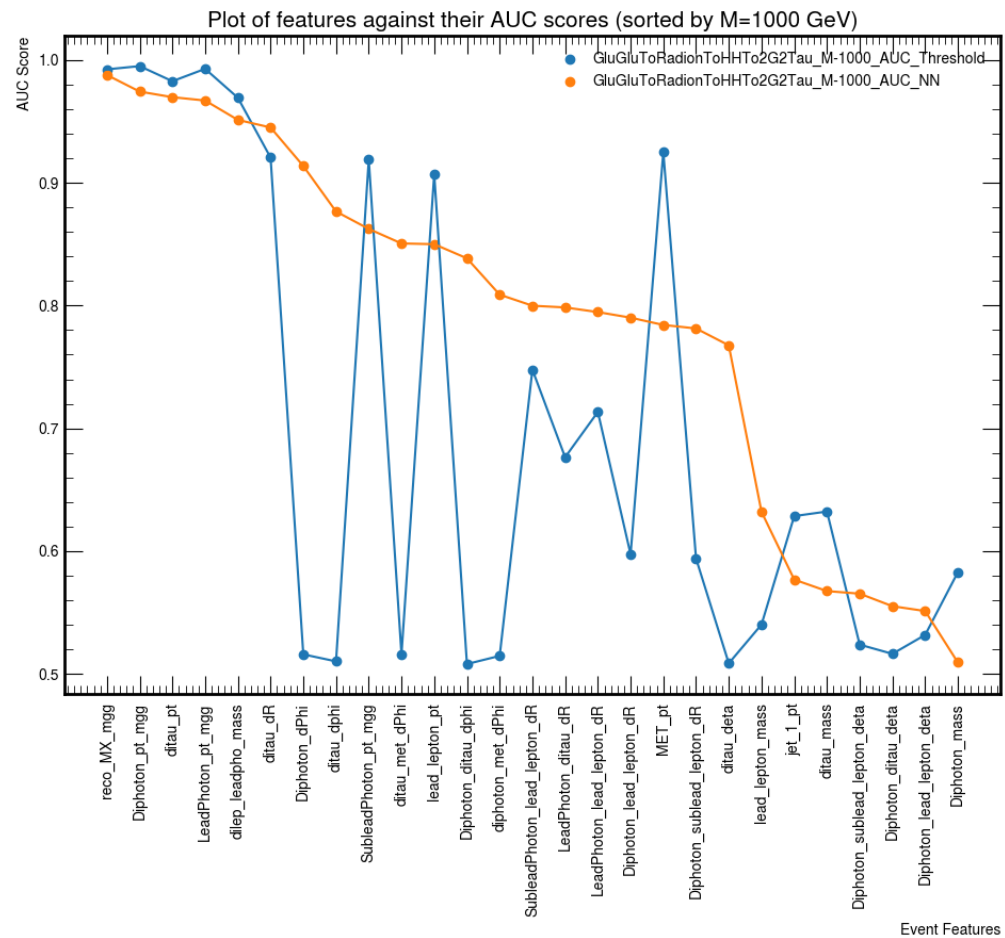
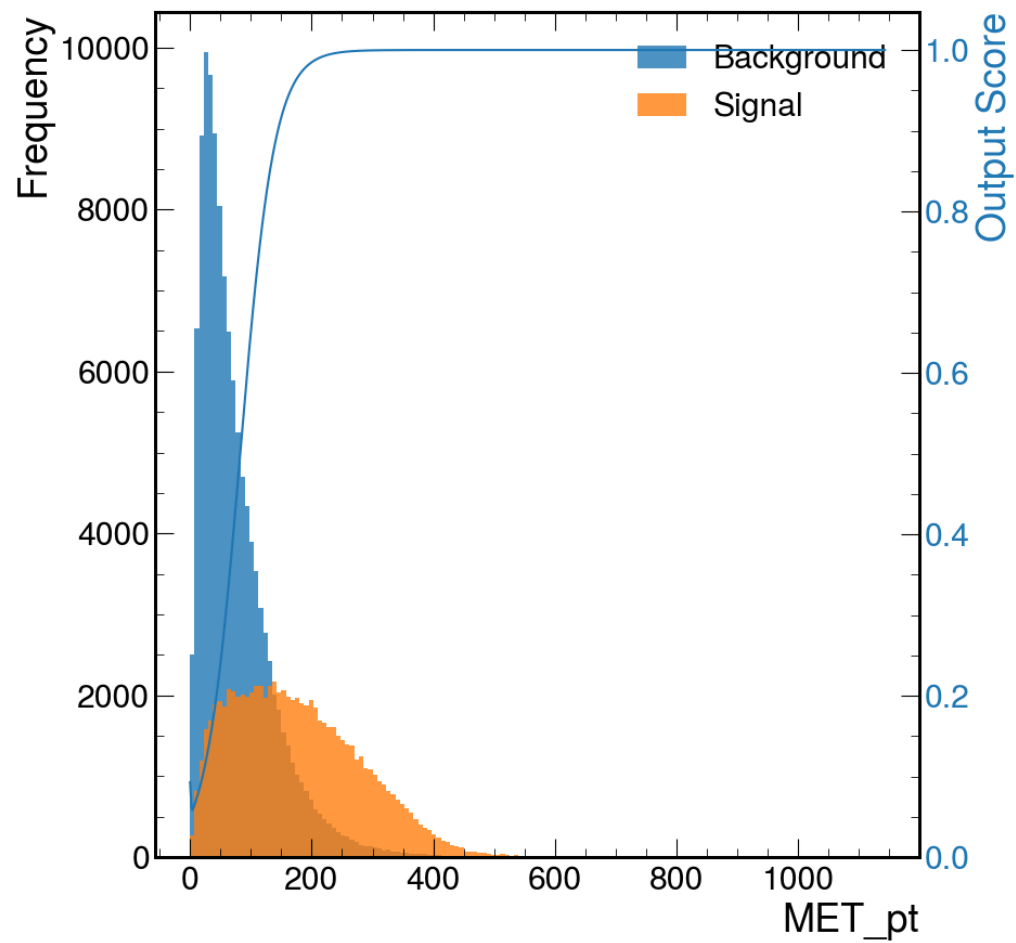
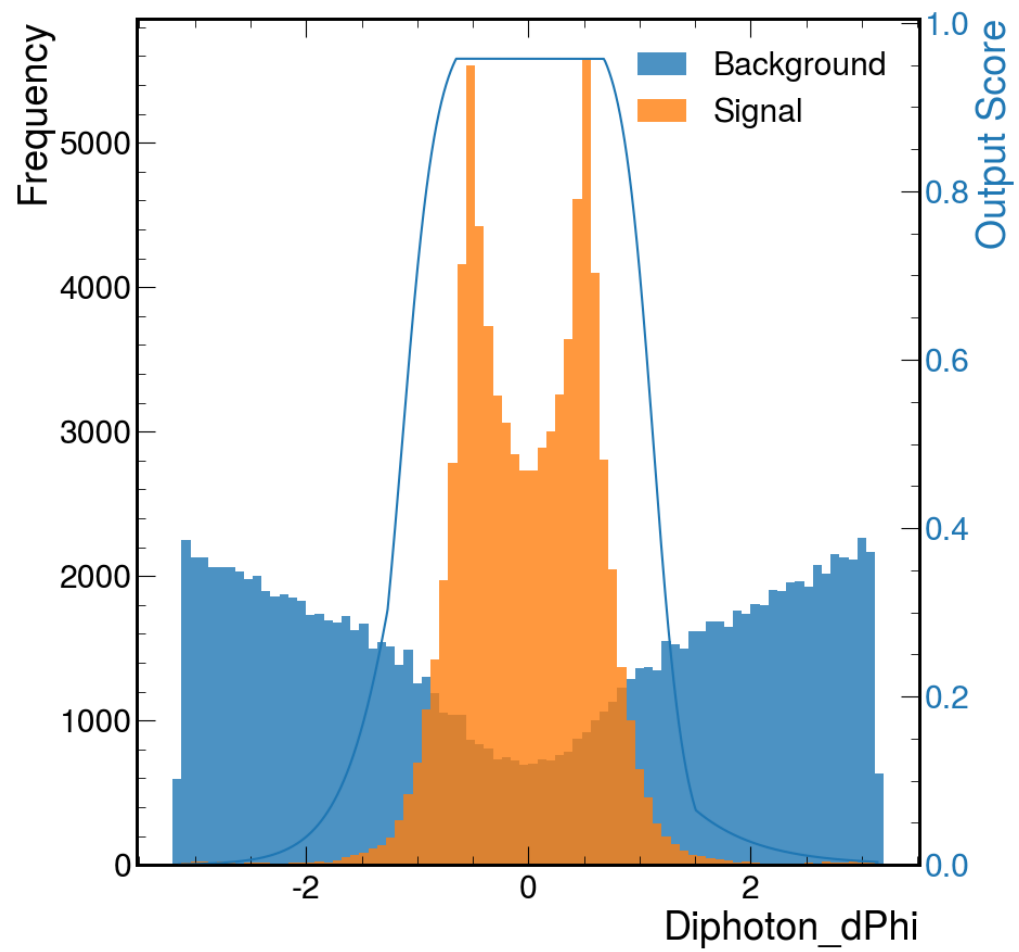
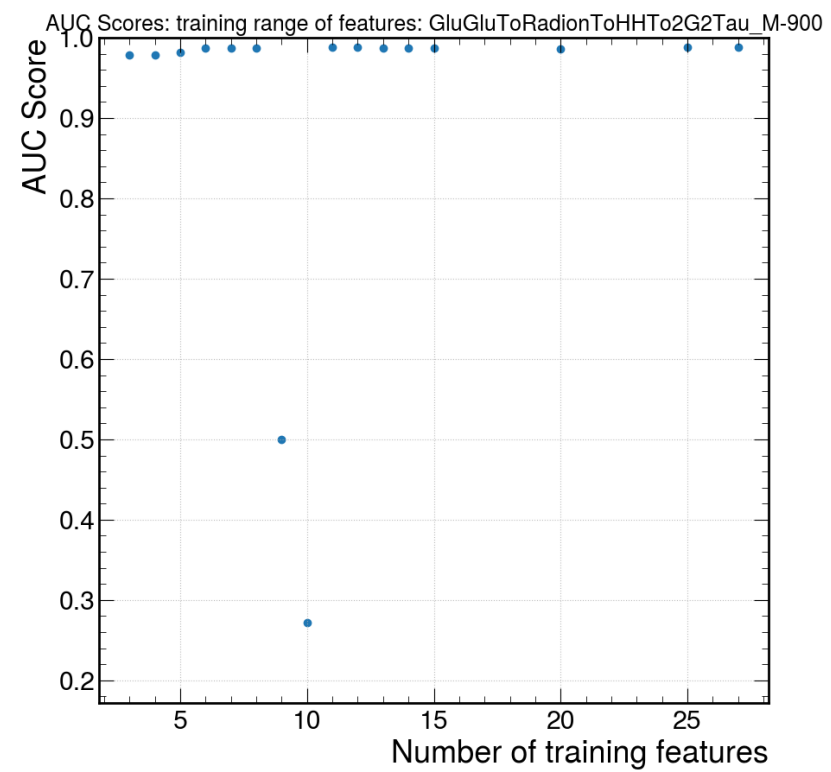
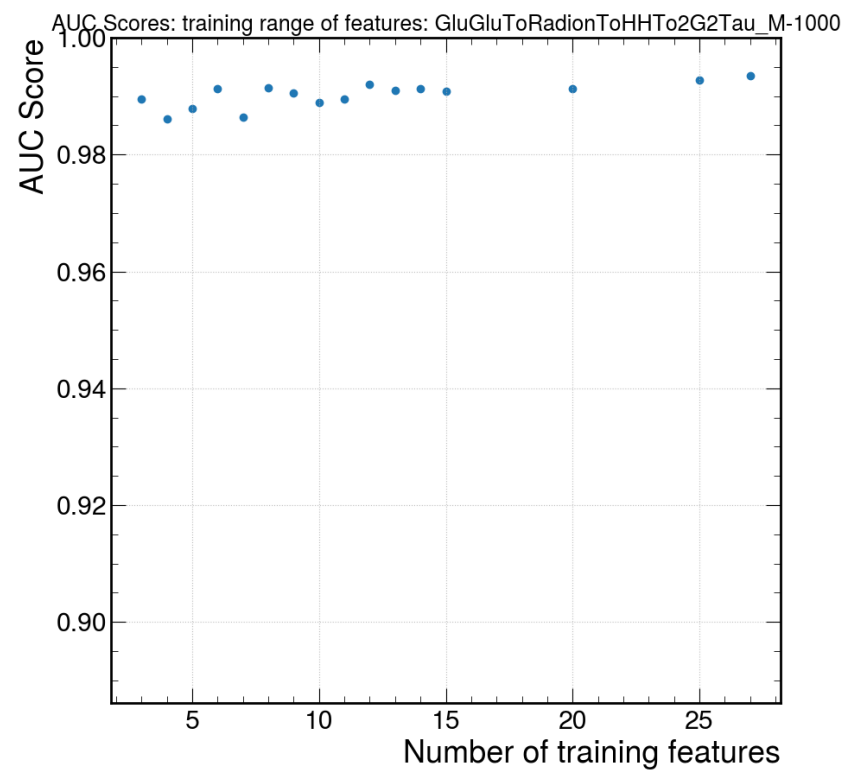


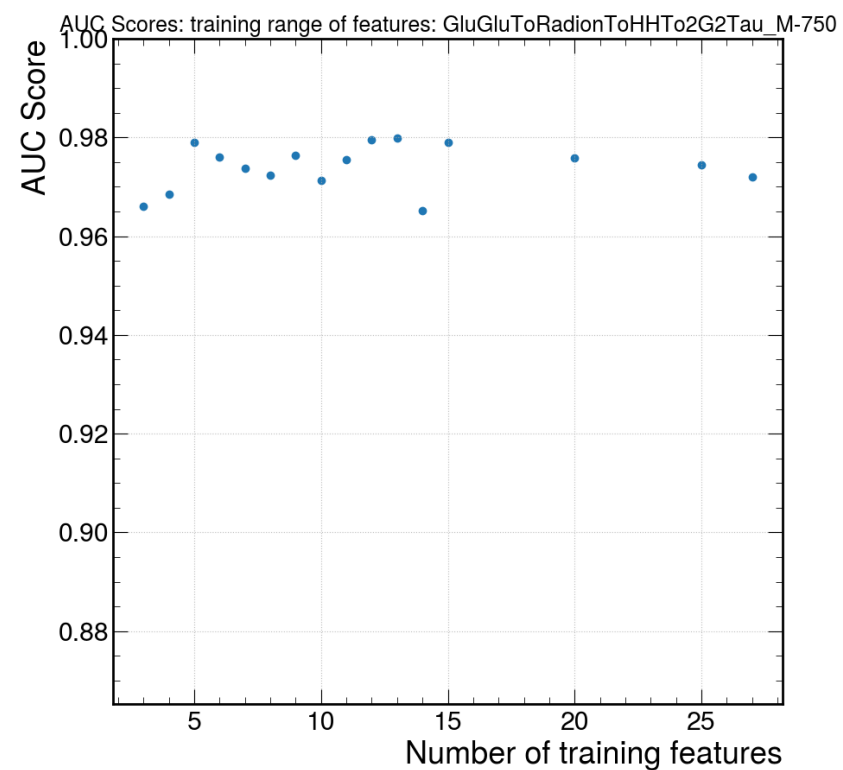
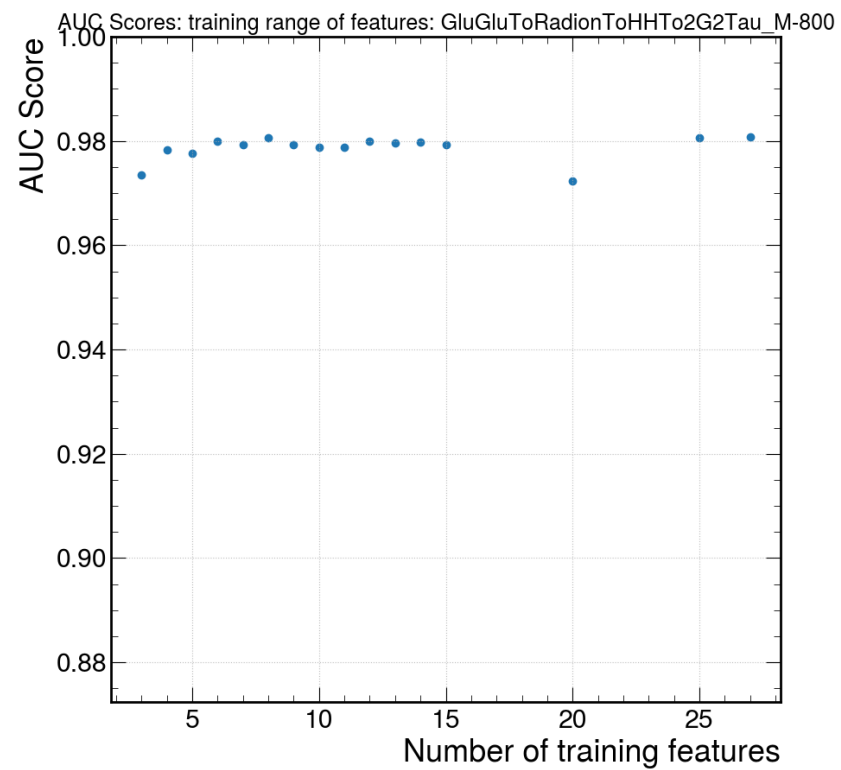
# Project Aim

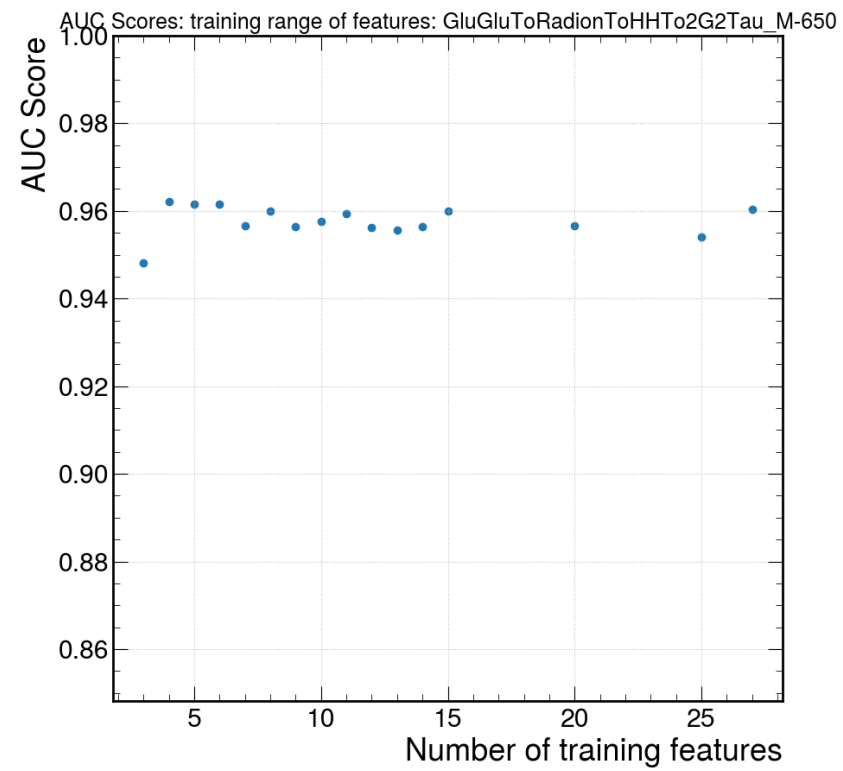
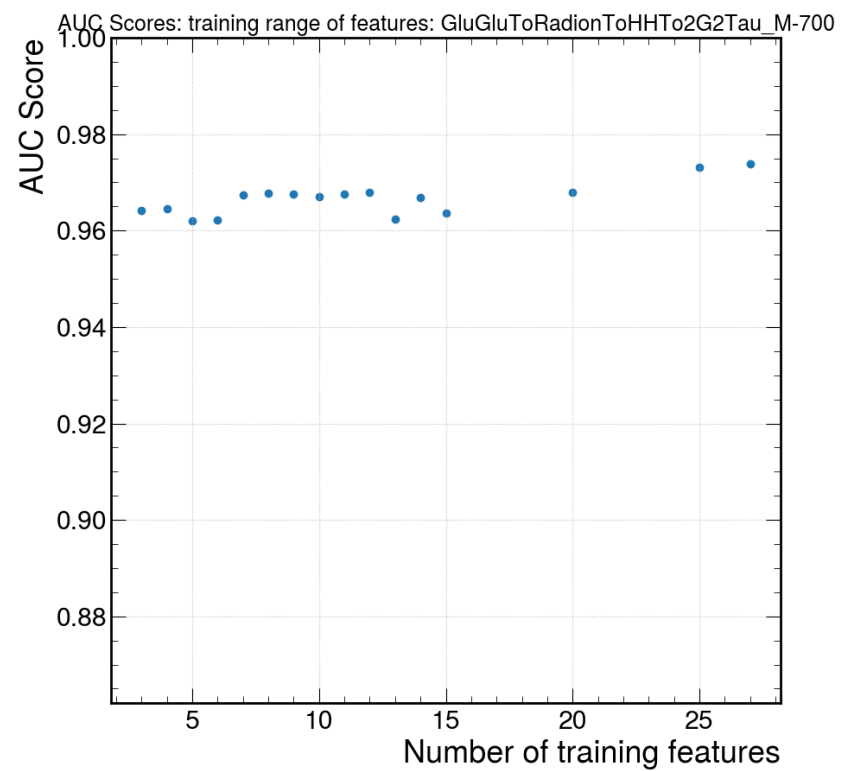
Employing parametric neural networks to enhance the exploration of new physics beyond the Standard Model, this project focuses on analyzing Higgs boson decay products, specifically photons and tau leptons, to identify novel resonances.

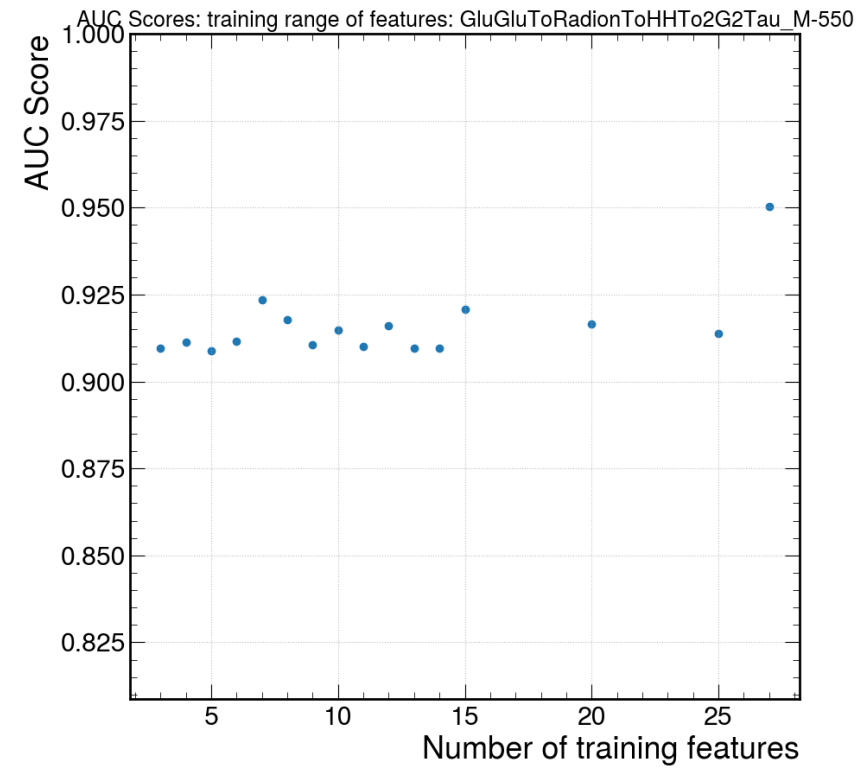
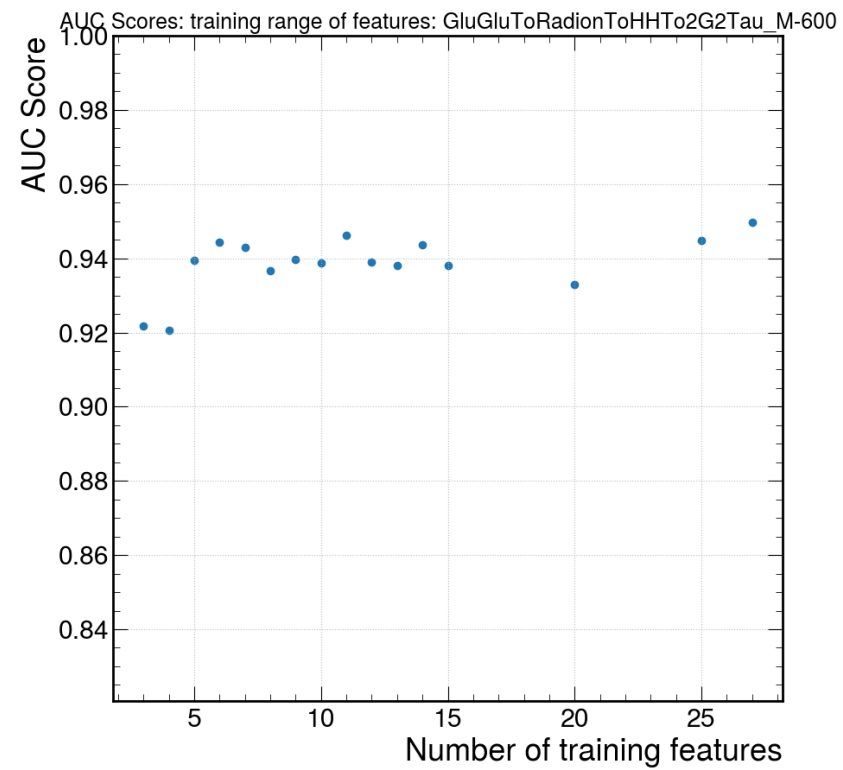


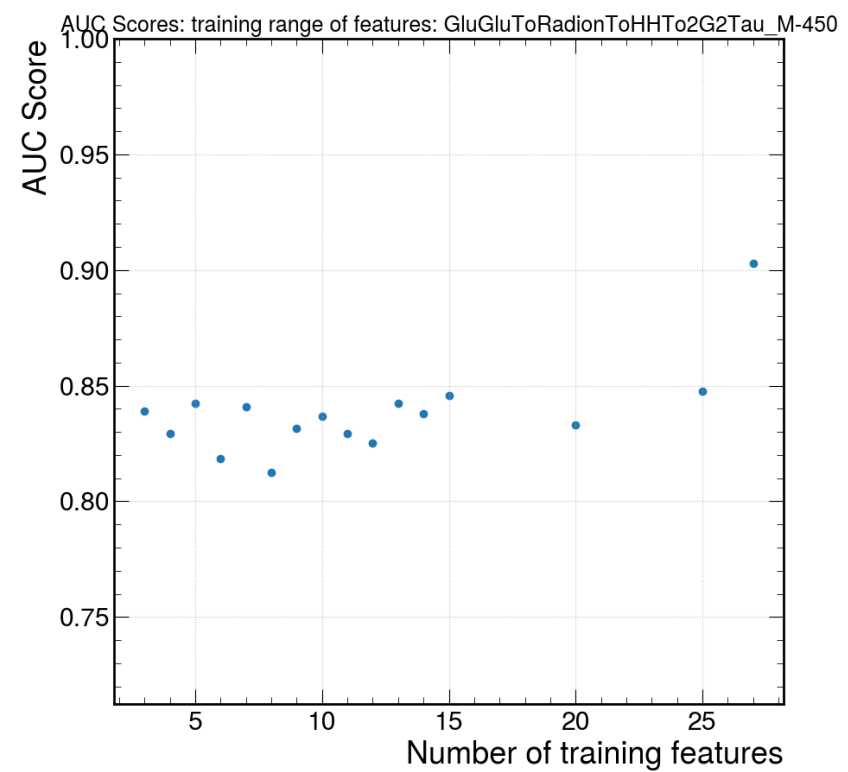
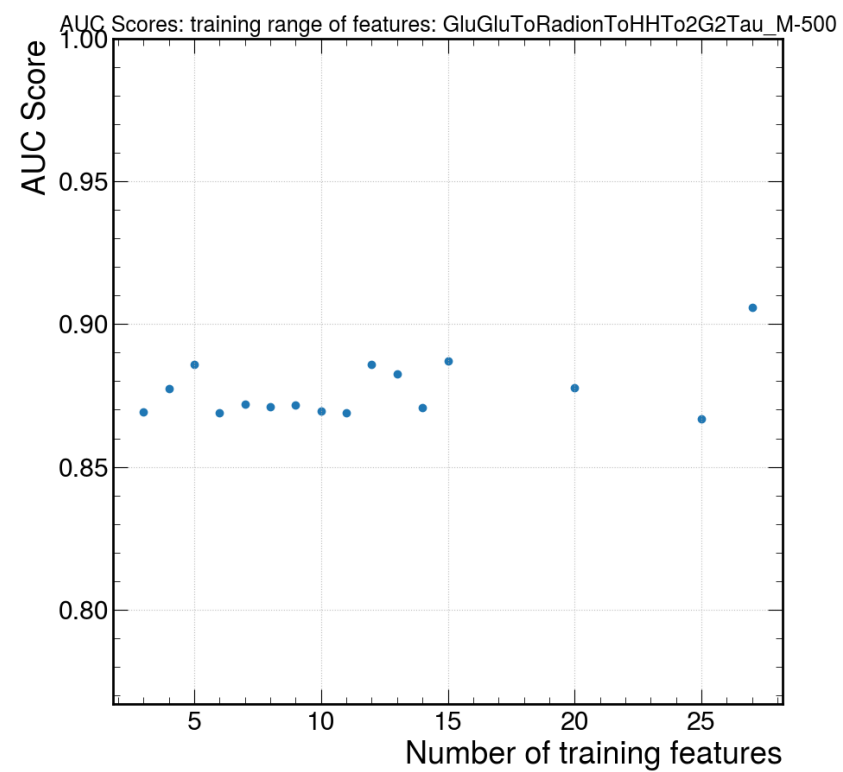




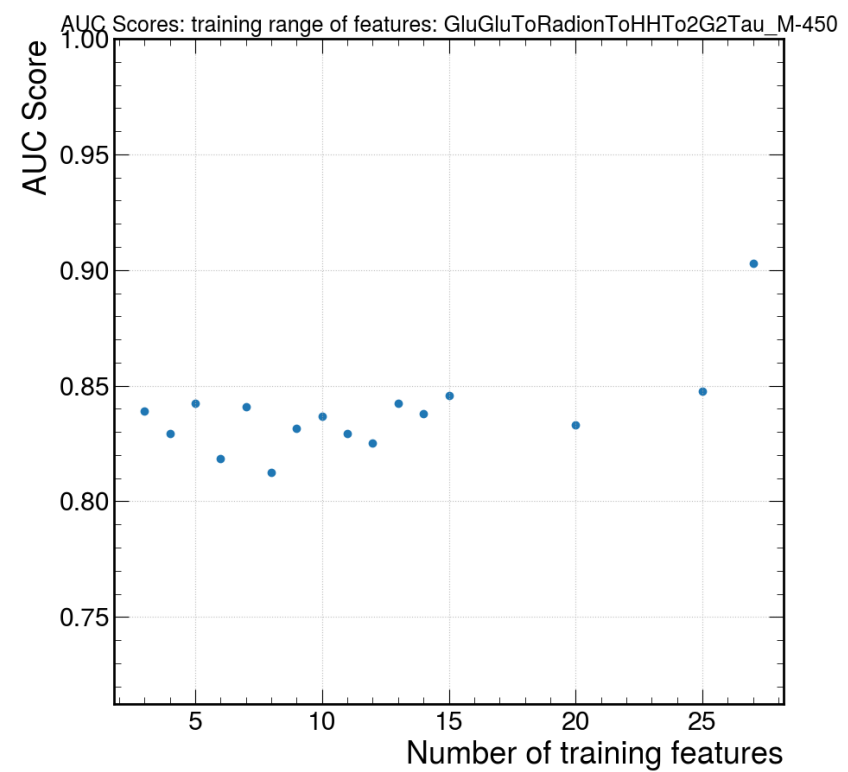
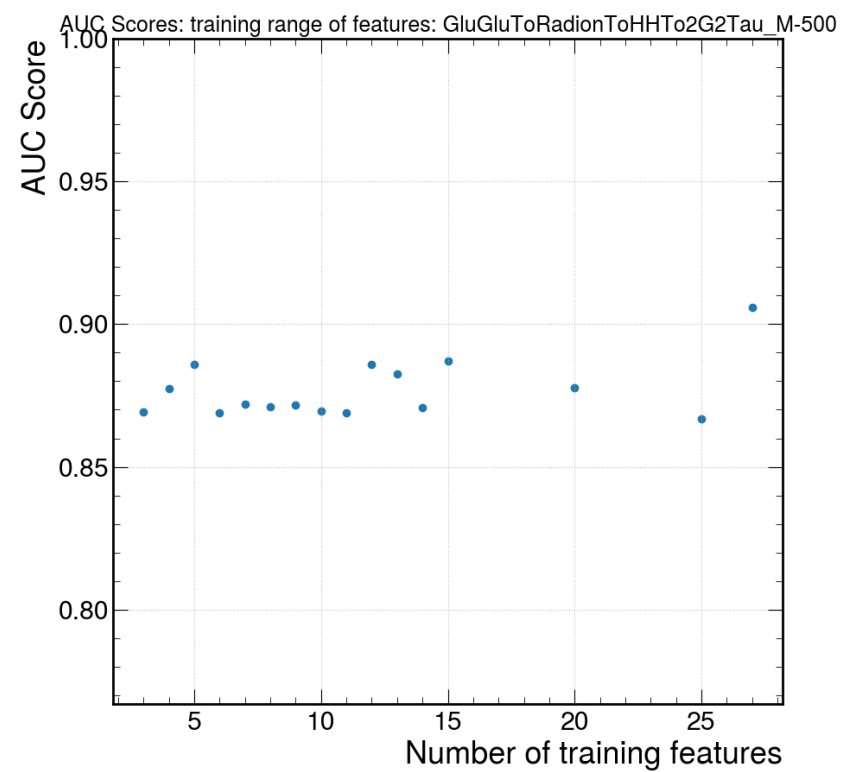


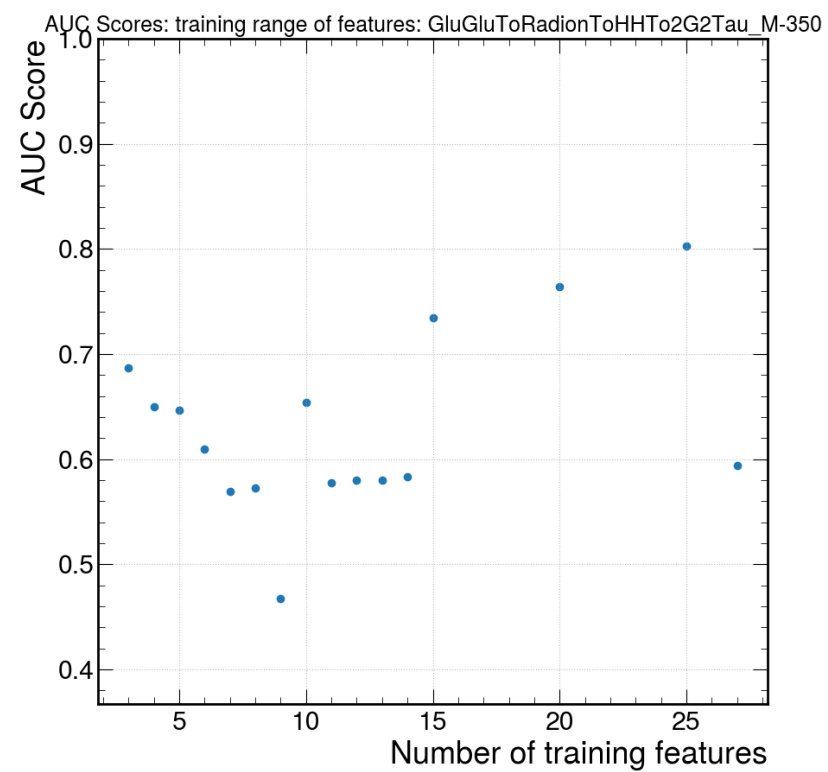
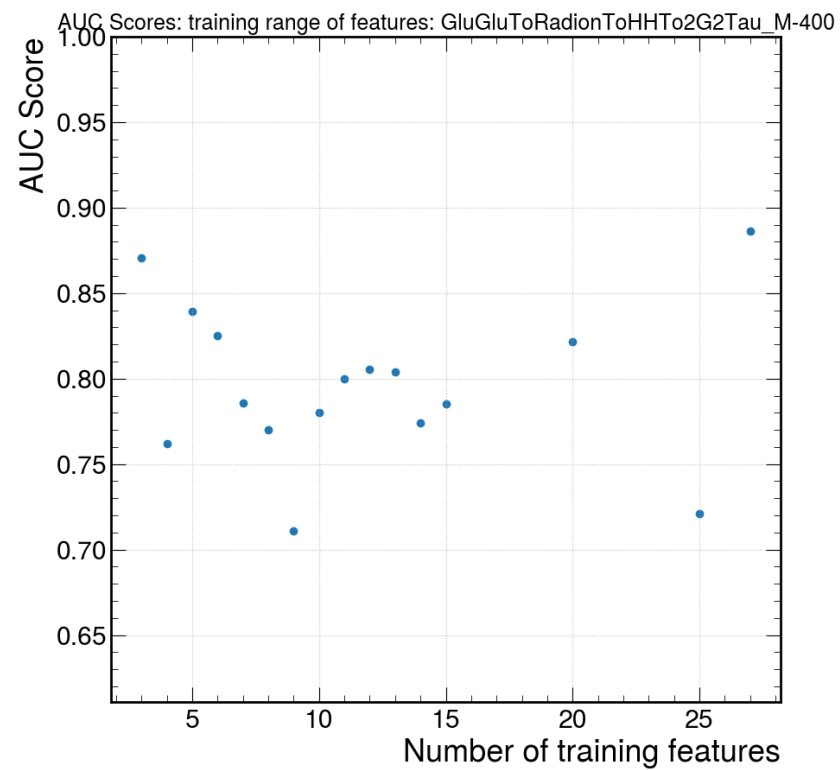


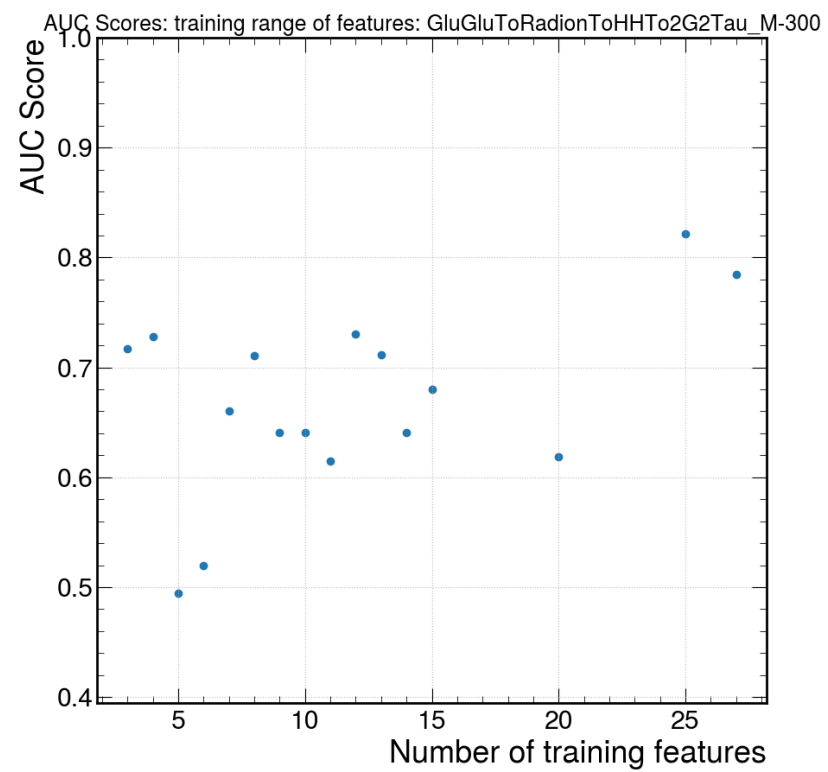
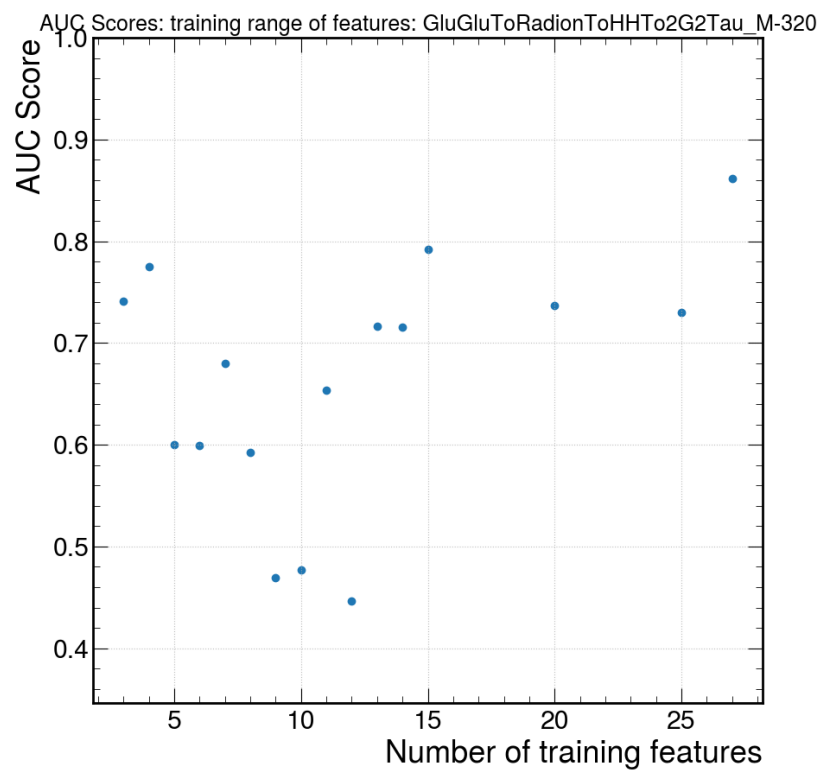


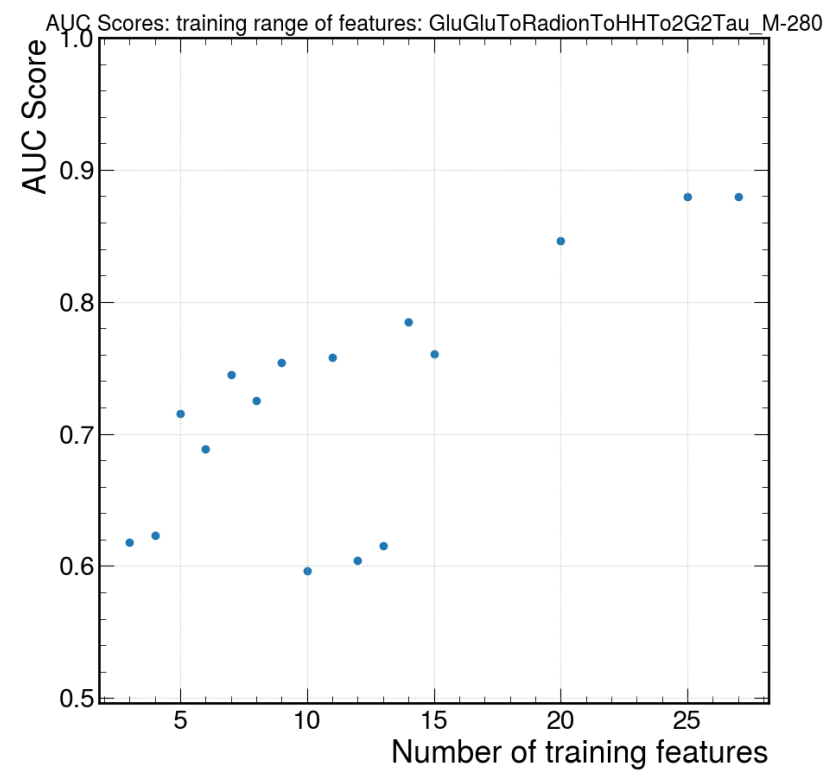
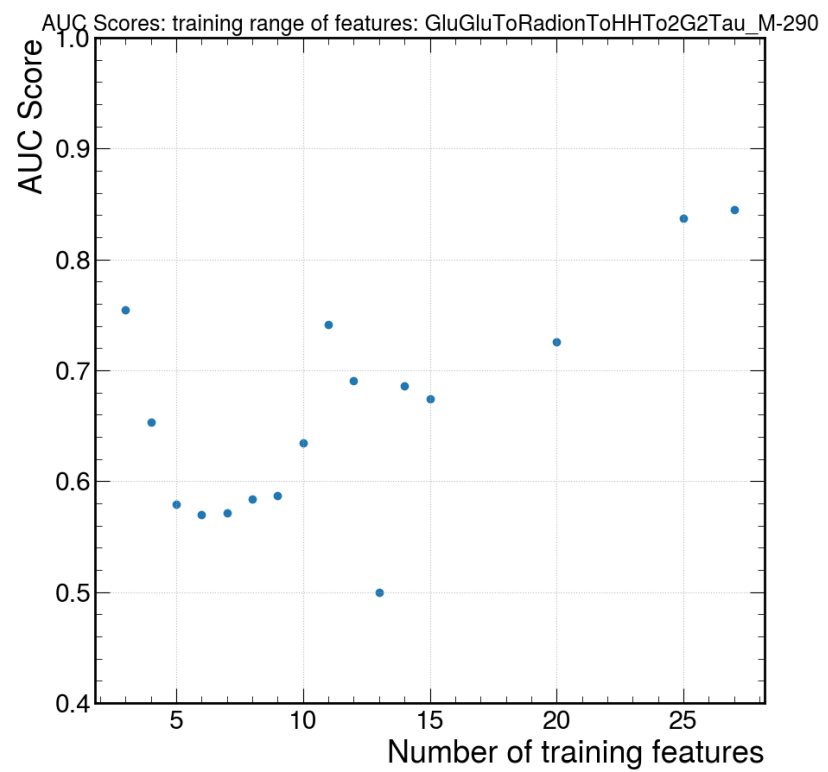


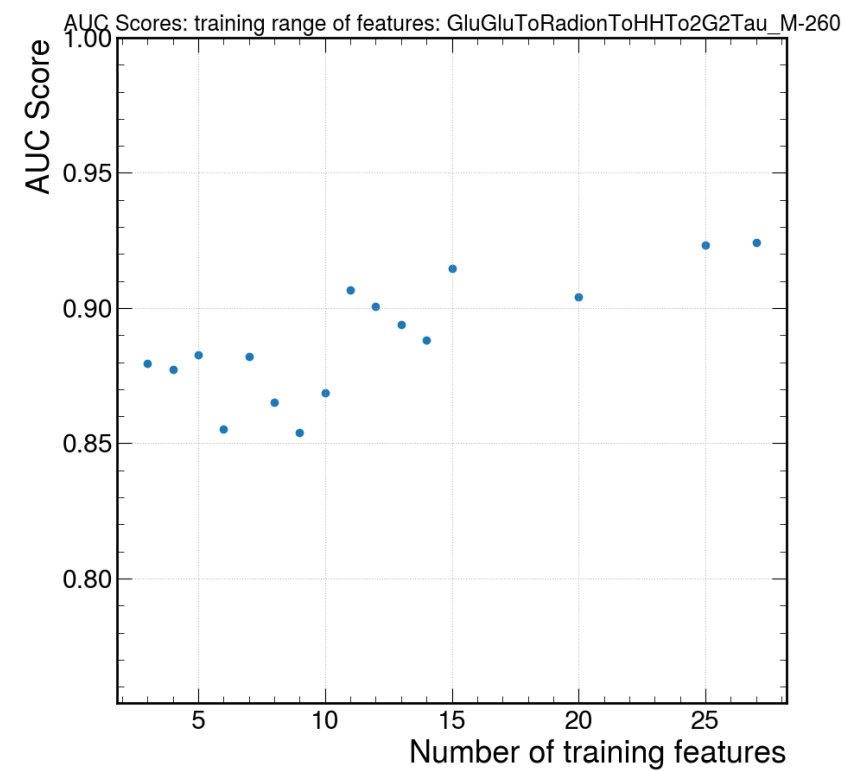
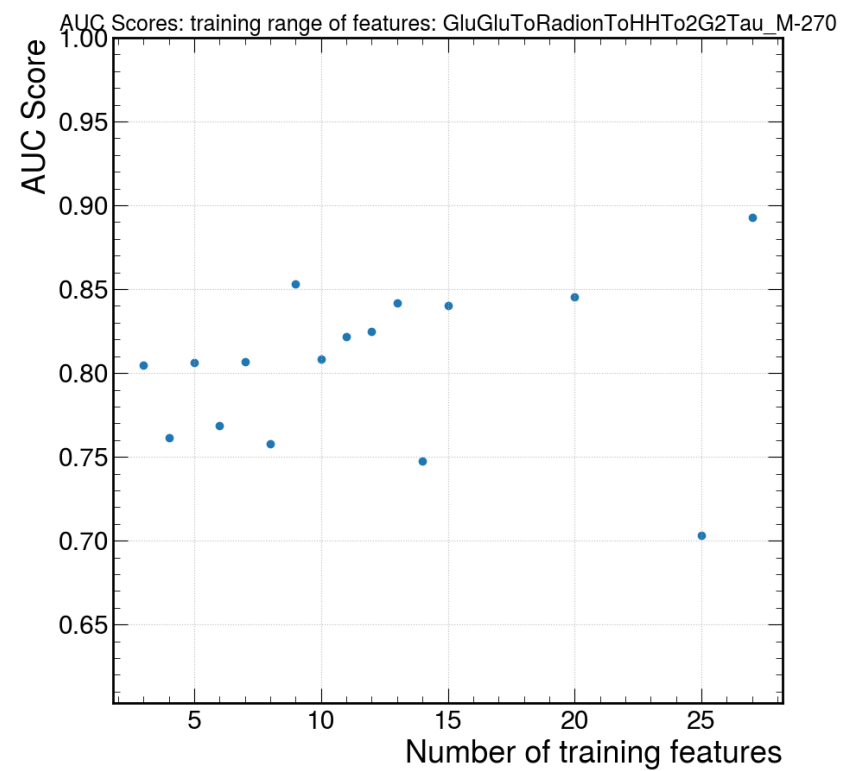


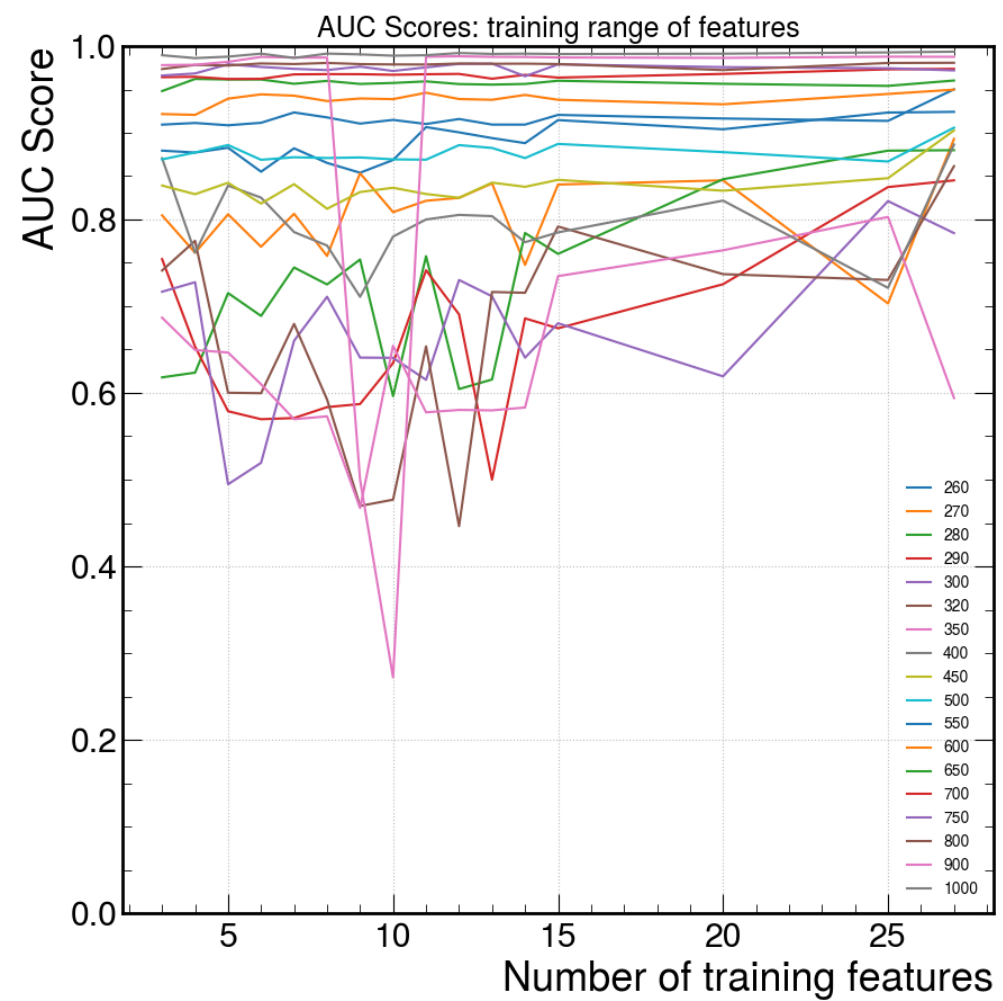












# Next Steps

- Find the optimal features which provide the highest AUC score across all mass hypothesis
- Find the most optimal architecture on each mass hypothesis
- Produce code that outputs an AUC score for each event feature hierarchy across a range of architectures at each mass hypothesis
- Find the highest AUC scores from each mass and determine the architecture and feature hierarchy