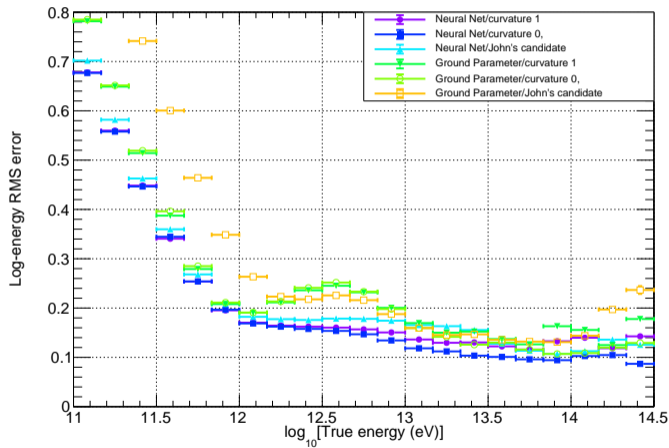


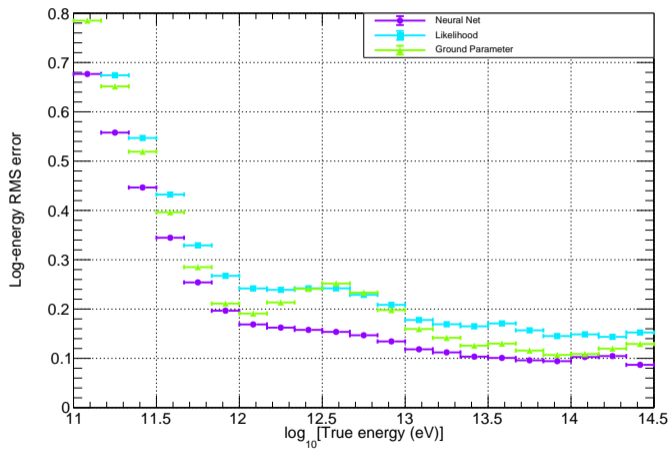
Energy performance on new MCs

- Performance of NN better on curvature-0 MC than on curvature-1 but worse on John's new MC.
- What happens if we retrain?



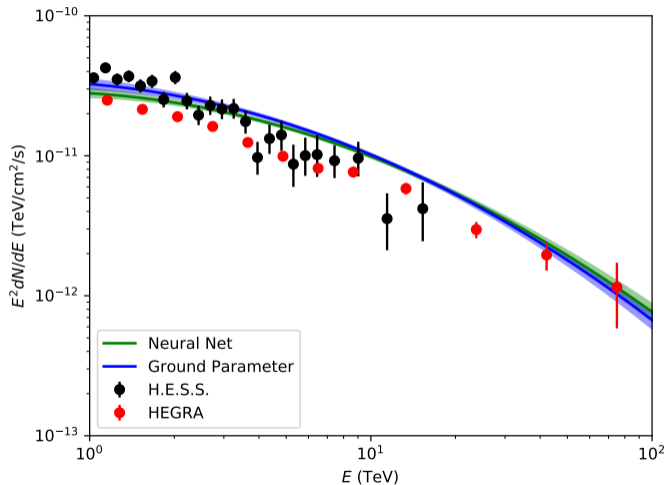
Energy performance on new MCs

- Something went awry in training.
- Will investigate.
- Since time was short on making plots for grant, used old estimator on curvature-0 MC.
- This already outperforms other algorithms without retraining.

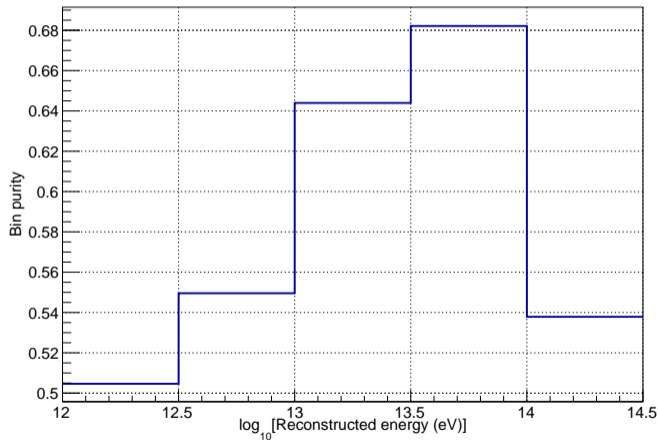


Comparing high-energy sensitivity with IACTS

- Stat.-only error compares favorably.
- HEGRA fractional error is $\sim 50\%$ at 75 TeV.
- HAWC could have competitive measurement if systematics can be decreased from 50% cited in Crab paper.



- Most events reconstructed above even 100 TeV with old cuts truly have energies that high.



Lower limit of high-energy Crab emission

- 4-parameter model: log parabola with hard cutoff.
- Set 95% lower limit on cutoff energy using profile likelihood.
- Result is 206 TeV with NN or 160 TeV with GP.
- $\sim 2\sigma$ evidence of emission above this energy.

Geminga analysis

- Tuned parameter bounds until fit converged.
- Weird value of and large error on spectral index (1.6 ± 0.4) probably due to correlation of diffusion angle and normalization (0.83). Need to optimize pivot energy.
- Computation of parameter contours is computationally intensive enough that should be run on batch system (not dev node as I was doing).
- Still, code runs and is ready to hand off.