

Parameter Fitting Updates

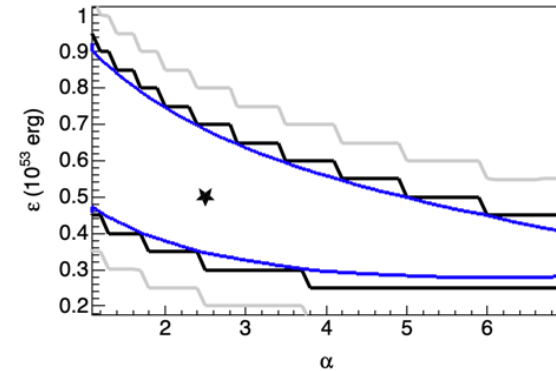
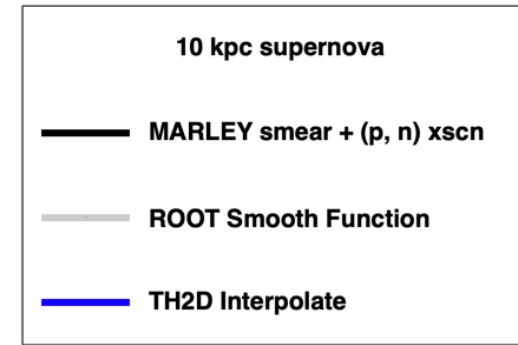
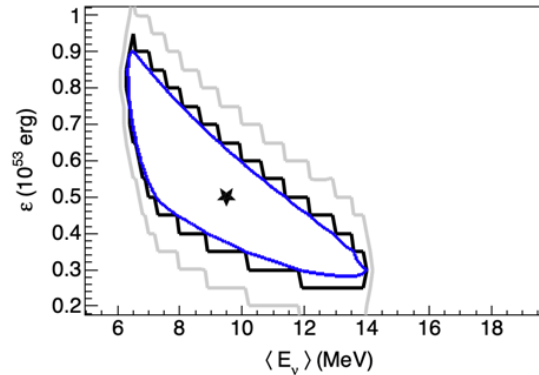
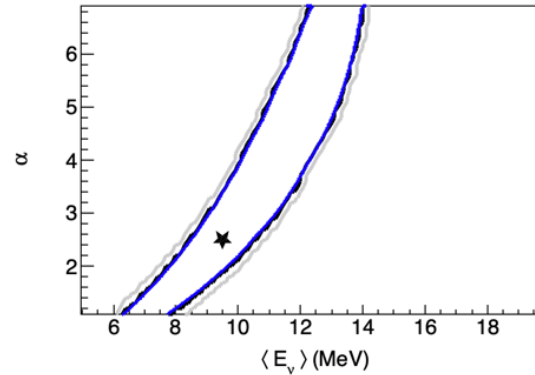
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SNB Working Group Meeting

Interpolating sensitivity regions

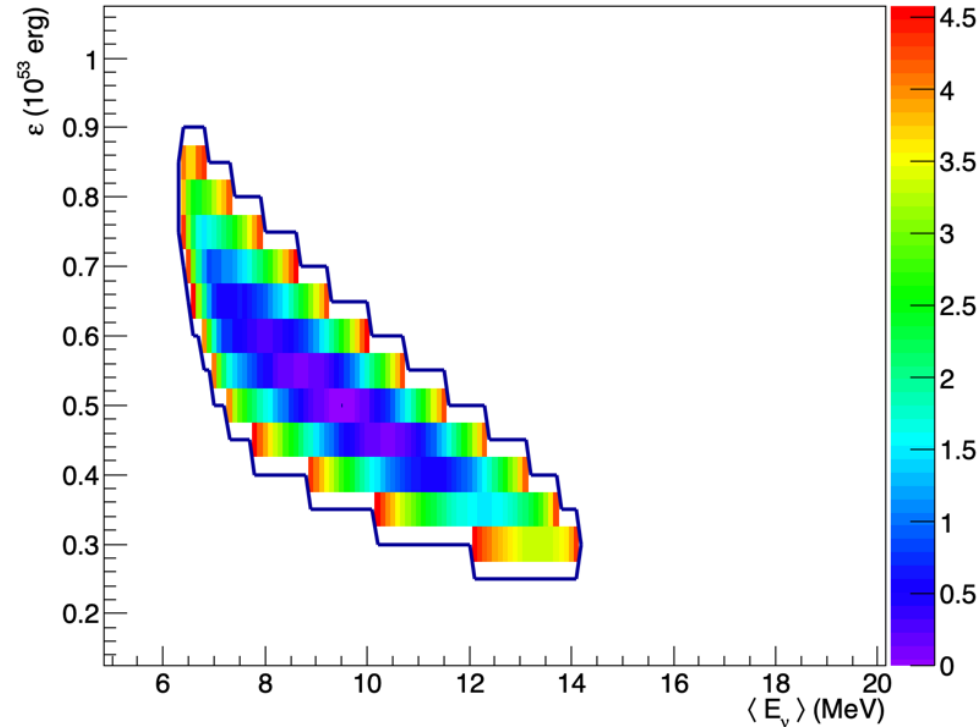
- A. Himmel suggested interpolating the sensitivity regions to remove unphysical jagged edges
- Interpolated by re-binning histogram with 1000 bins for each axis and interpolating the χ^2 value based on original histogram
- Biggest change for ε as it contains the smallest number of bins



The contours get smaller?

Raw colormap with superimposed contour

- Comparing the original contour to the colormap (with cut at $\chi^2 = 4.61$ for two free parameters), the contours are over-estimating the region

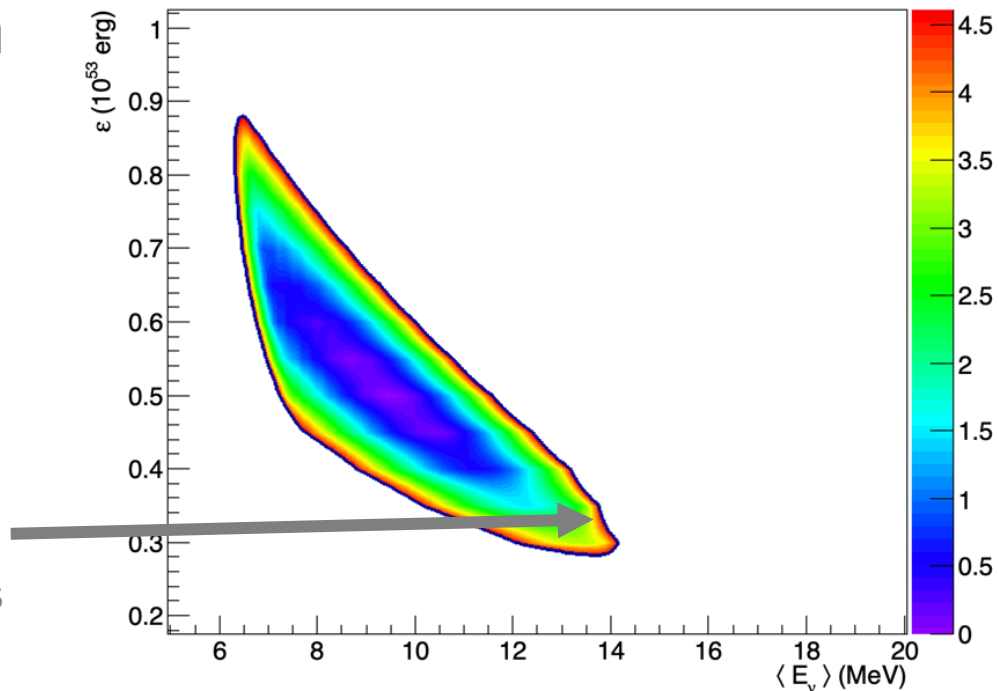


The contours get smaller?

- Re-binning the histogram means the contours are much closer to the colormap's true edges

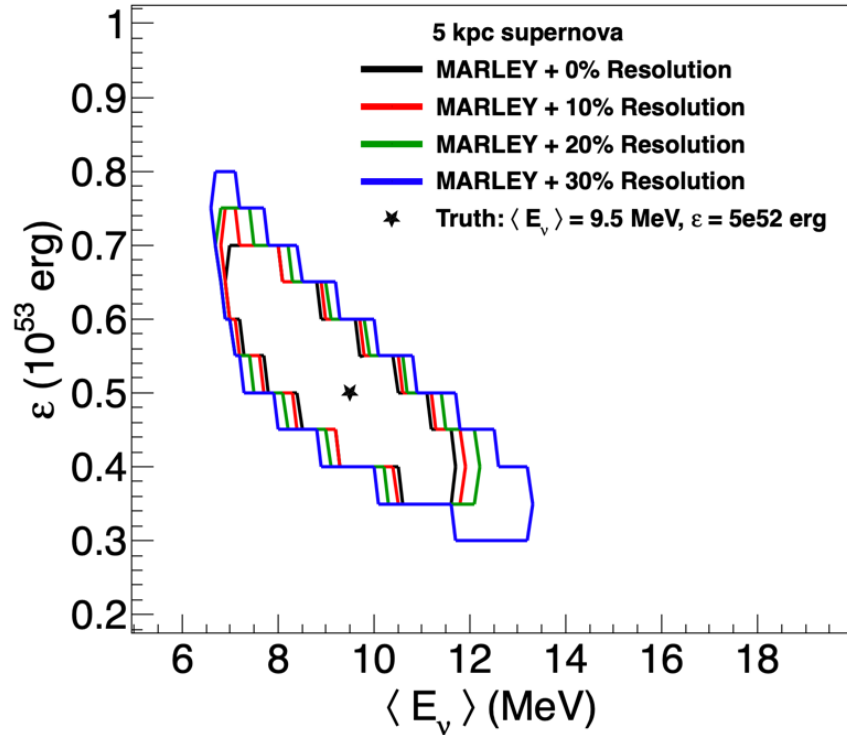
Note: the “scalloping” on the lower right corner is probably due to original number of bins being small; smoothing or interpolating with different number of bins does not remove this feature

Interpolated colormap with superimposed contour



Comparing Sensitivity Regions

Before interpolation



After interpolation

