Predicting Neutrino Emission for the Sources in the H.E.S.S. Galactic Plane Survey

Presented by

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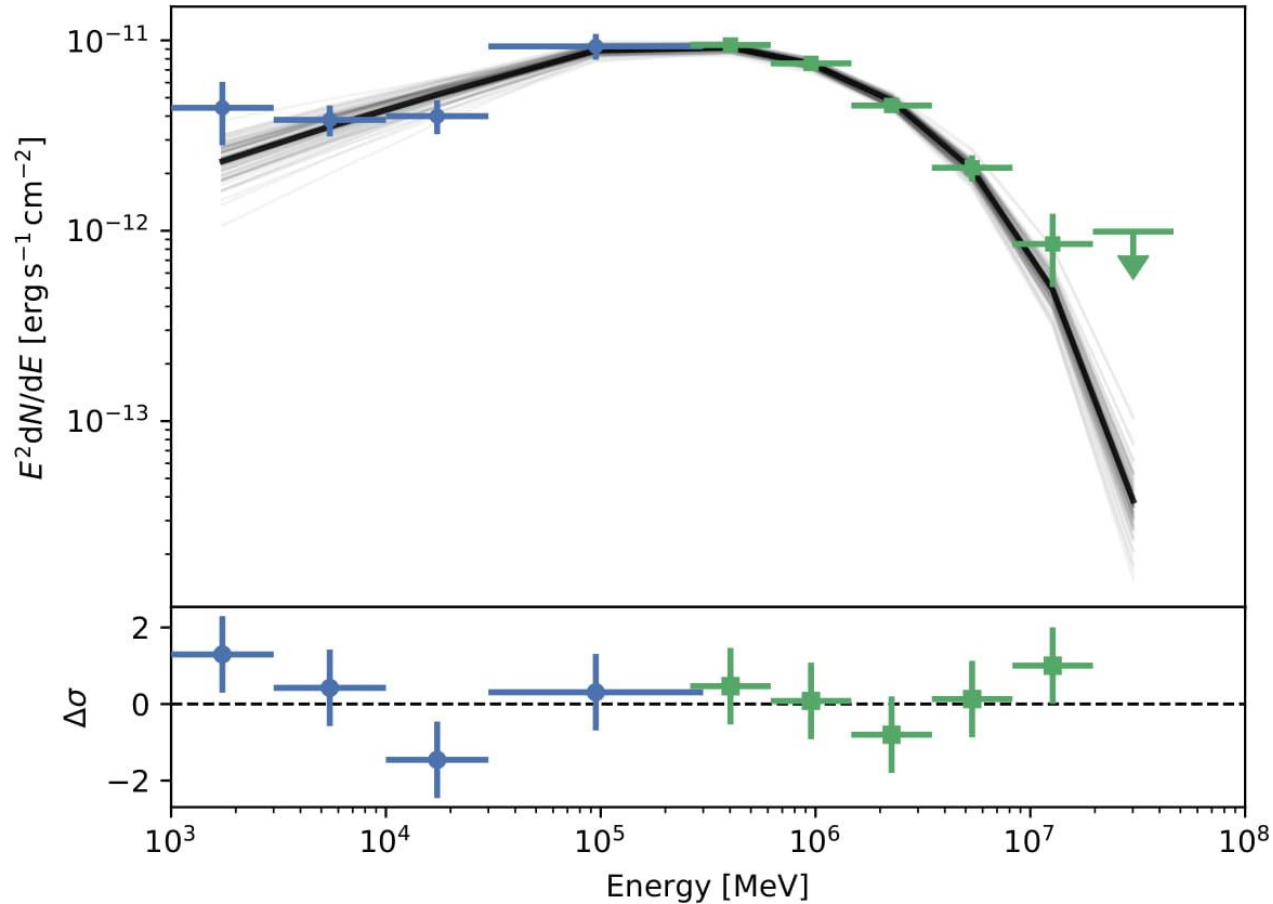
H.E.S.S. Galactic Plane Survey

- 78 sources
- 48 unidentified
- 66 used to create neutrino map

Model is Independent of:

- Source Class
- Distance to source
- Density of the ambient medium

Fitting the Gamma-ray emission

Green: HESS J1640-465

Blue: 4FGL J1640.6-4632

X^2 p-value = 0.43

Parameters of the proton spectrum:

Spectral index = 1.7

Energy Cutoff = 15.7 TeV

Normalisation = 3.9×10^{48} TeV^{-1} s^{-1} cm^{-2}

Energy 1.0 TeV - 3.2 TeV

Energy 3.2 TeV - 10.0 TeV

Energy 10.0 TeV - 31.6 TeV

Energy 31.6 TeV - 100.0 TeV