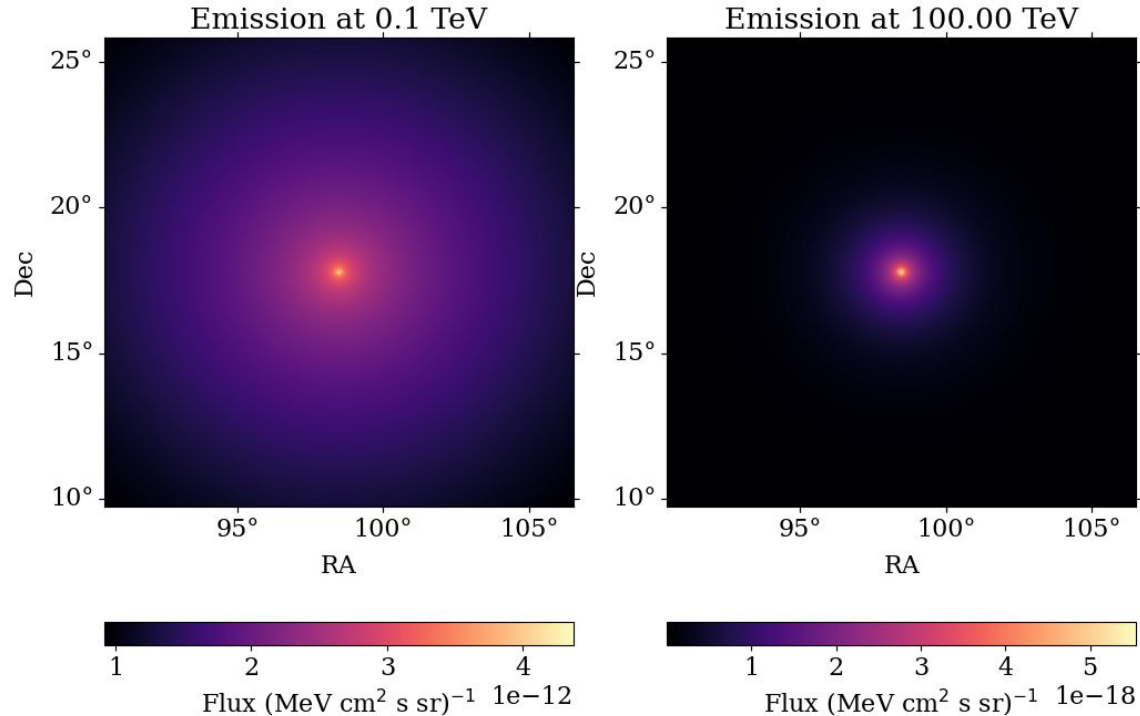# Follow-up Geminga's Contribution to the Local Positron Excess with the HAWC gamma-ray observatory

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Model

Emission at 0.1 TeV

Emission at 100.00 TeV

- Model of IC halo assumes 100% efficiency of pulsar Ė to e⁻e⁺ emission
- Anisotropic diffuse emission accounting for pulsar proper motion
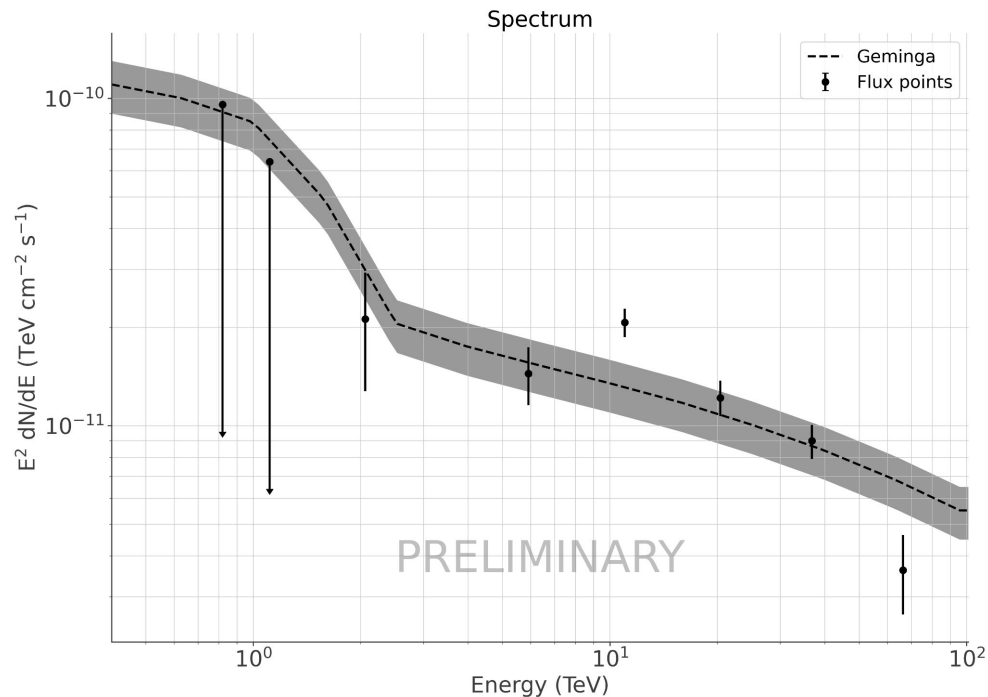
Geminga

Comparison of D_0 at 100 TeV with $\alpha_e = 1.96$
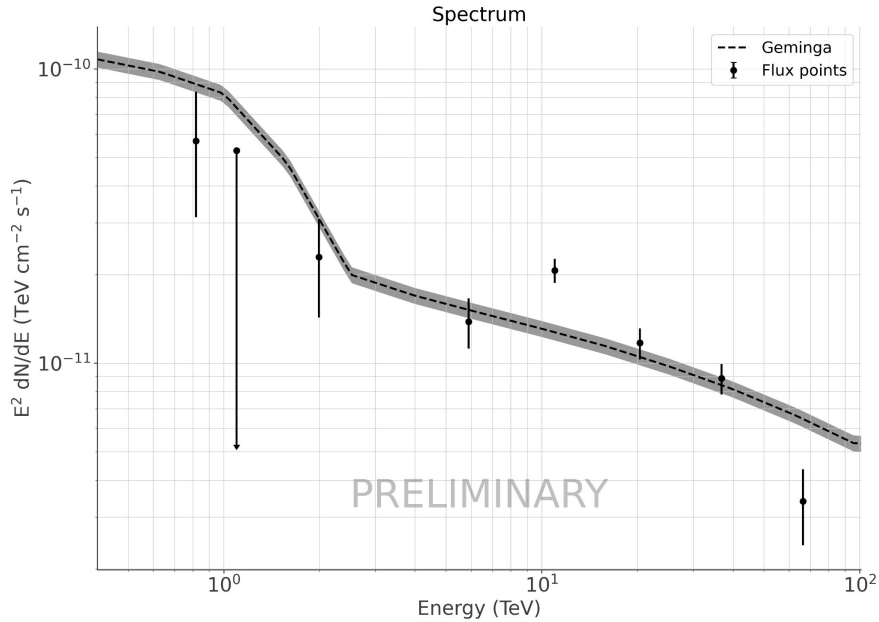
Current Work
- $D_{100} = (3.30 - 0.50 + 0.48) \times 10^{27}$ cm^2/s
- $K(\dot{E} \rightarrow e^-e^+) = (4.2 \pm 0.8) \times 10^{-2}$

HAWC, 2017
- $D_{100} = (3.2 - 1.0 + 1.4) \times 10^{27}$ cm^2/s
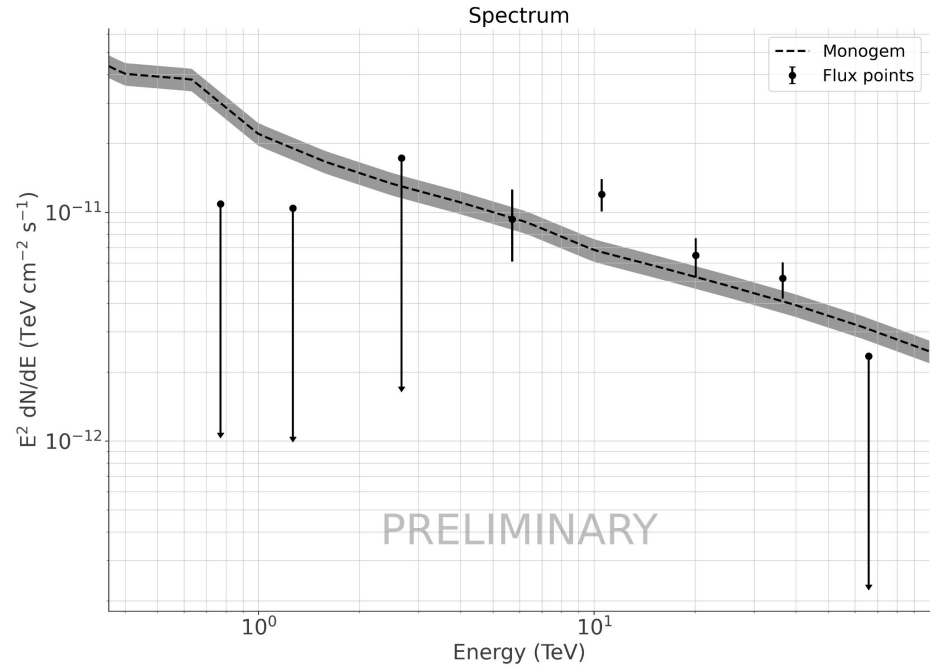- $K(\dot{E} \rightarrow e^-e^+) = 40\%$

Geminga and Monogem Combined Fit

Geminga

- $K(\dot{E}{\rightarrow}e^-e^+) = (4.10 \pm 0.25) \times 10^{-2}$

Monogem

- $K(\dot{E}{\rightarrow}e^-e^+) = (1.58 \pm 0.17) \times 10^{-2}$