

# Dark Matter Update

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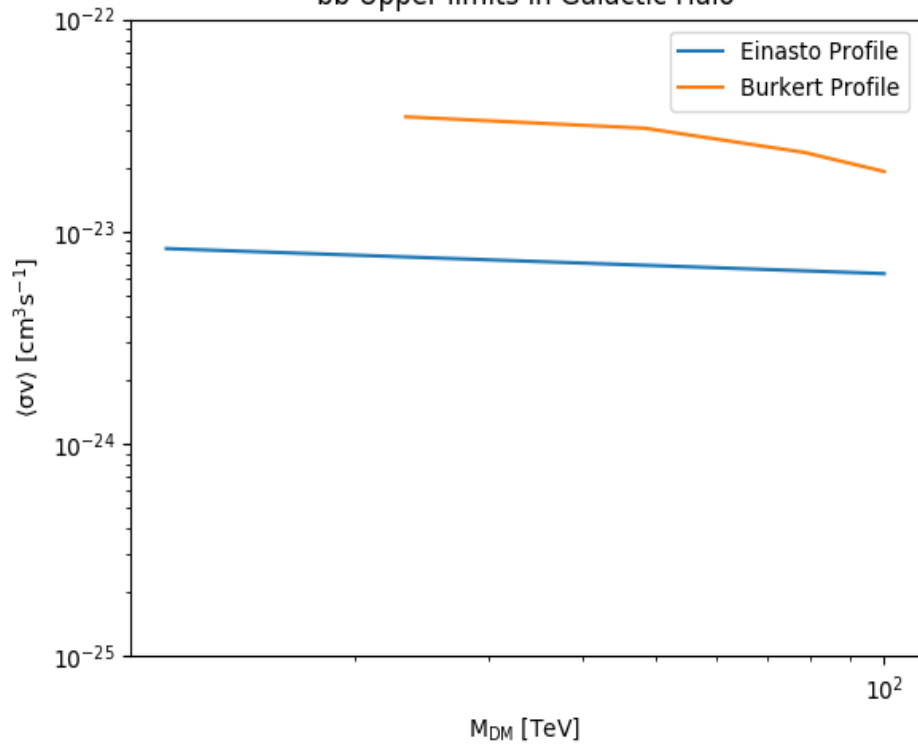
5/30/19

# Preliminary Limits

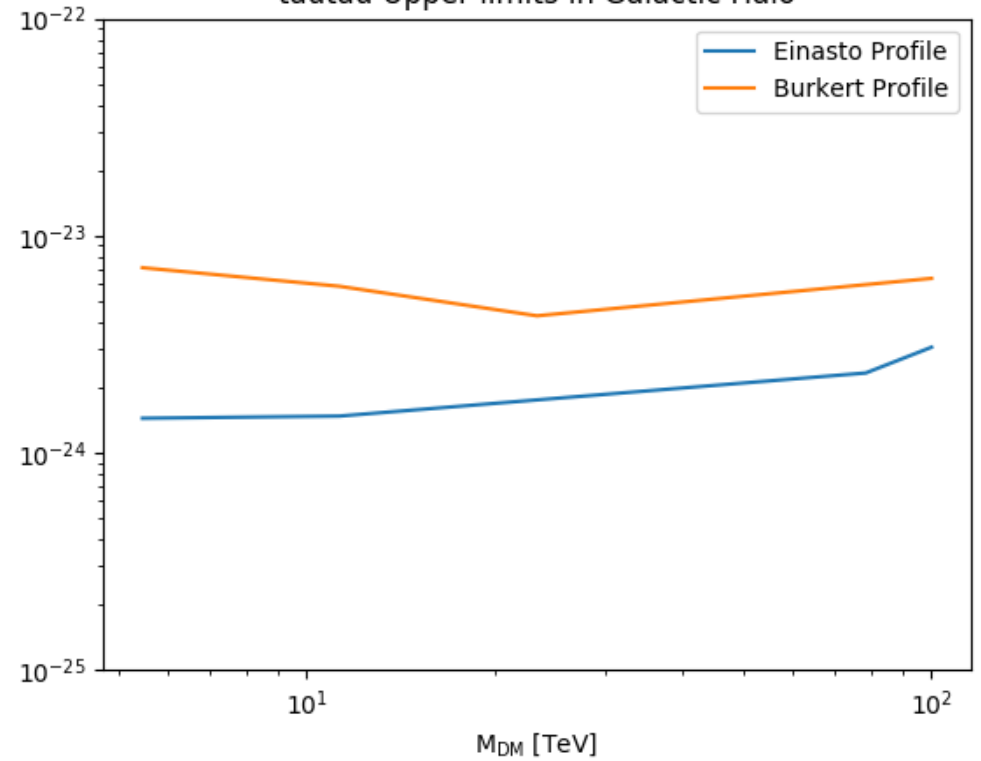
- Being run on 2-hr DI maps without ROI mask
  - Currently making 24 hr energy maps
- Should be no excess
  - DI will wash out any signal from the halo
  - Will give us limits assuming 24 hr DI does not reveal any new signal
- But: there is excess
  - Only for low-mass ( $<10$  TeV) spectra
  - Shows up much more strongly for the Burkert and bb cases

# Limit Plots

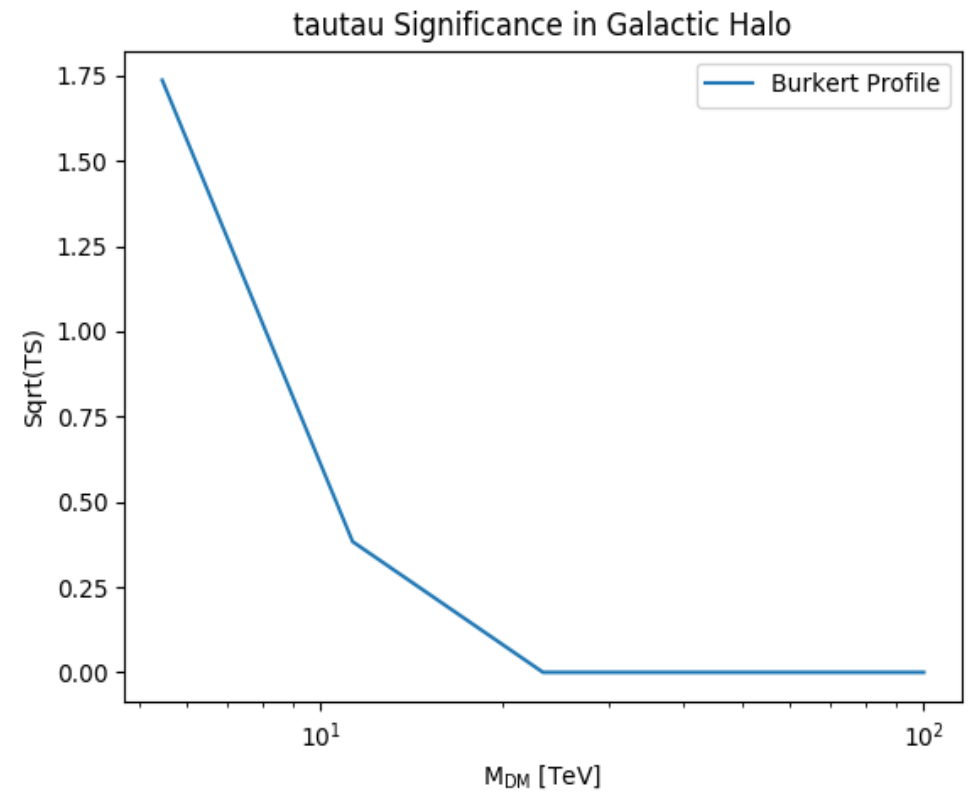
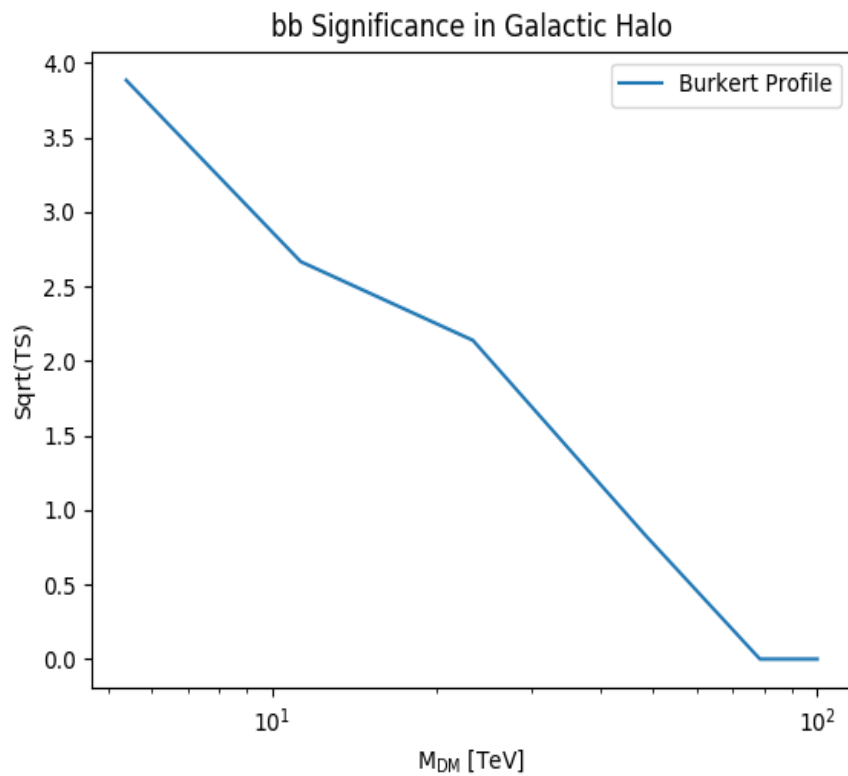
bb Upper limits in Galactic Halo



tautau Upper limits in Galactic Halo

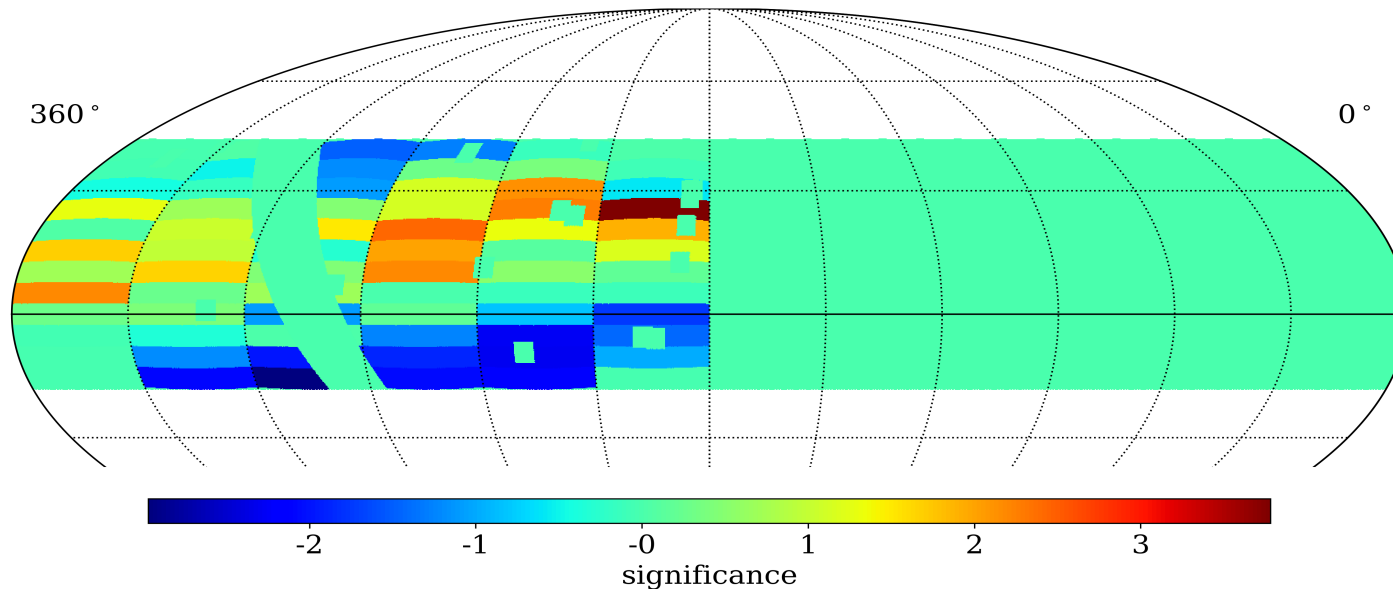


# Burkert Significance



# Significance by Sky Region

- Performed independent fit of each region to isolate which ones have excess
- Used 5 TeV, bb spectrum
- Regions with excess are almost entirely overhead
  - Explains why it shows up stronger for Burkert



# Significance using aerie

- Used aerie-apps-HealpixSigFluxMap
- 5 degree extension
- Reveals some excess in the 3.7 sigma region
- Used index 2 power law; maybe try with cutoff power law instead?

