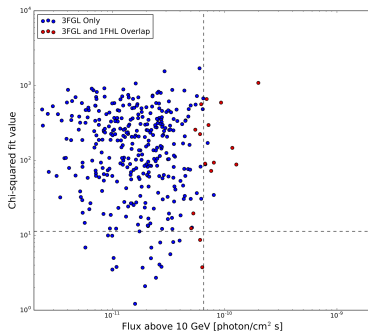


# FERMI LAT LIMITS ON PRIMORDIAL BLACK HOLE EVAPORATION

## Motivation

- ▶ Primordial density fluctuations in early Universe could have produced low-mass black holes ( $M \approx 10^{14} \text{ kg}$ )
- ▶ PBHs emit Hawking radiation, which for  $\tau < 10$  years is about 35%  $\gamma$  rays
- ▶ Detection is difficult because PBHs move quickly across the sky
- ▶ Limits were set by non-observation of good PBH candidates within 1FHL catalog

## 3FGL and 1FHL Point Source Study



## Upper Limit

