



# Strong constraints on dark matter models from a combined analysis of Milky Way dwarf galaxies with the Fermi Large Area Telescope

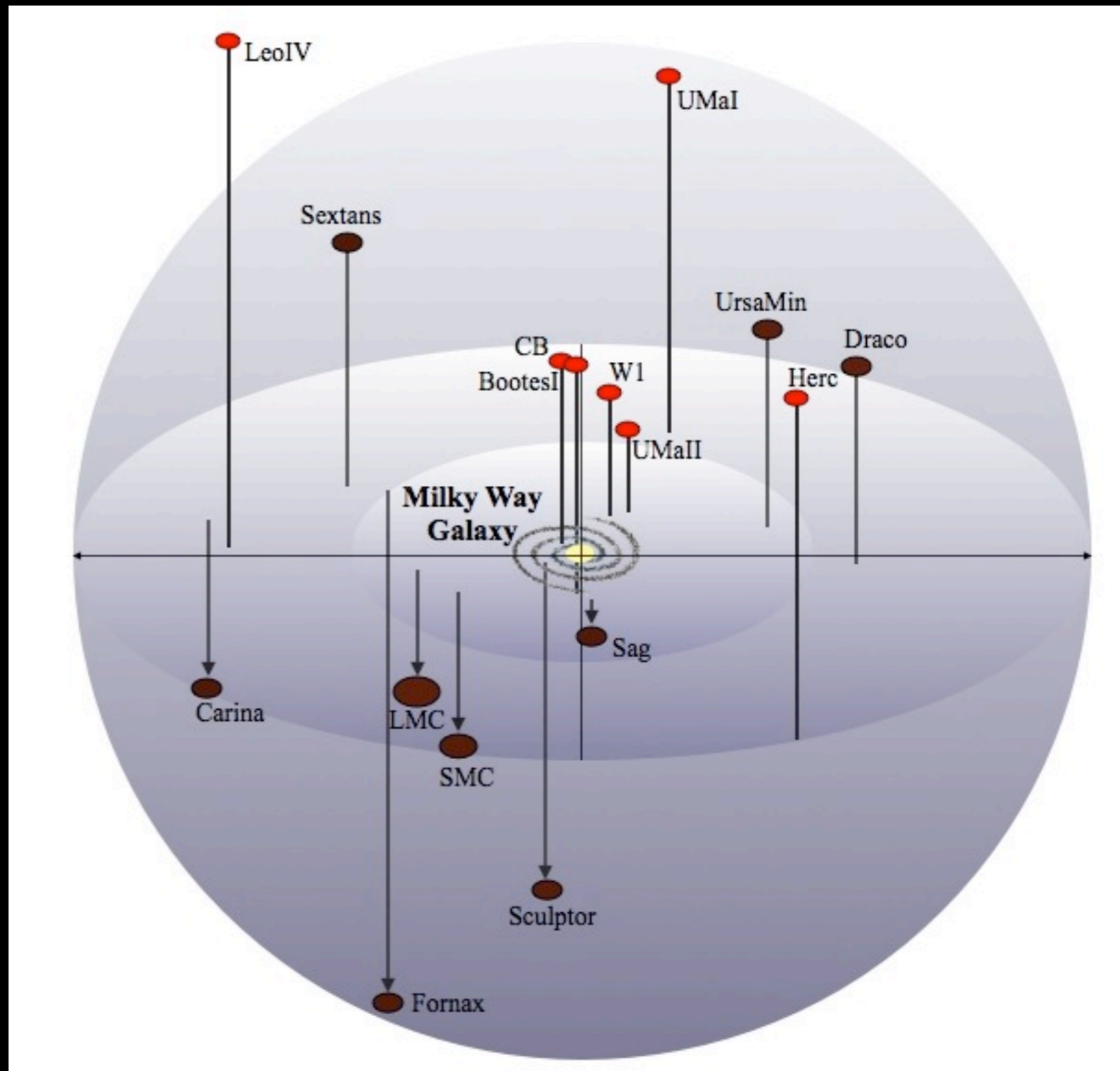
M. Ackermann et al. [Fermi LAT Collaboration]  
PRL 107, 241302 (2011)

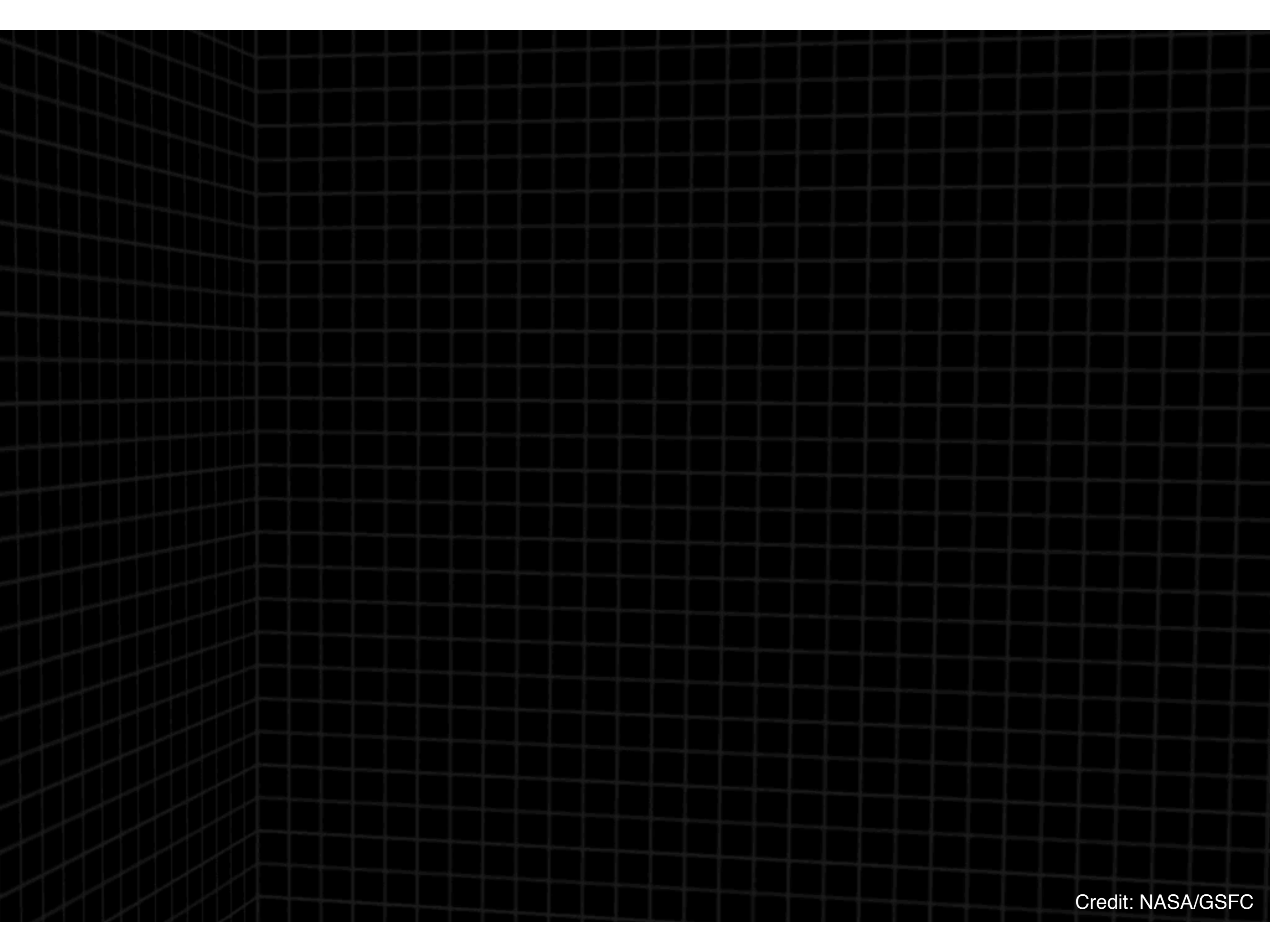
see also: Geringer-Sameth & Koushiappas,  
PRL 107, 241303 (2011)

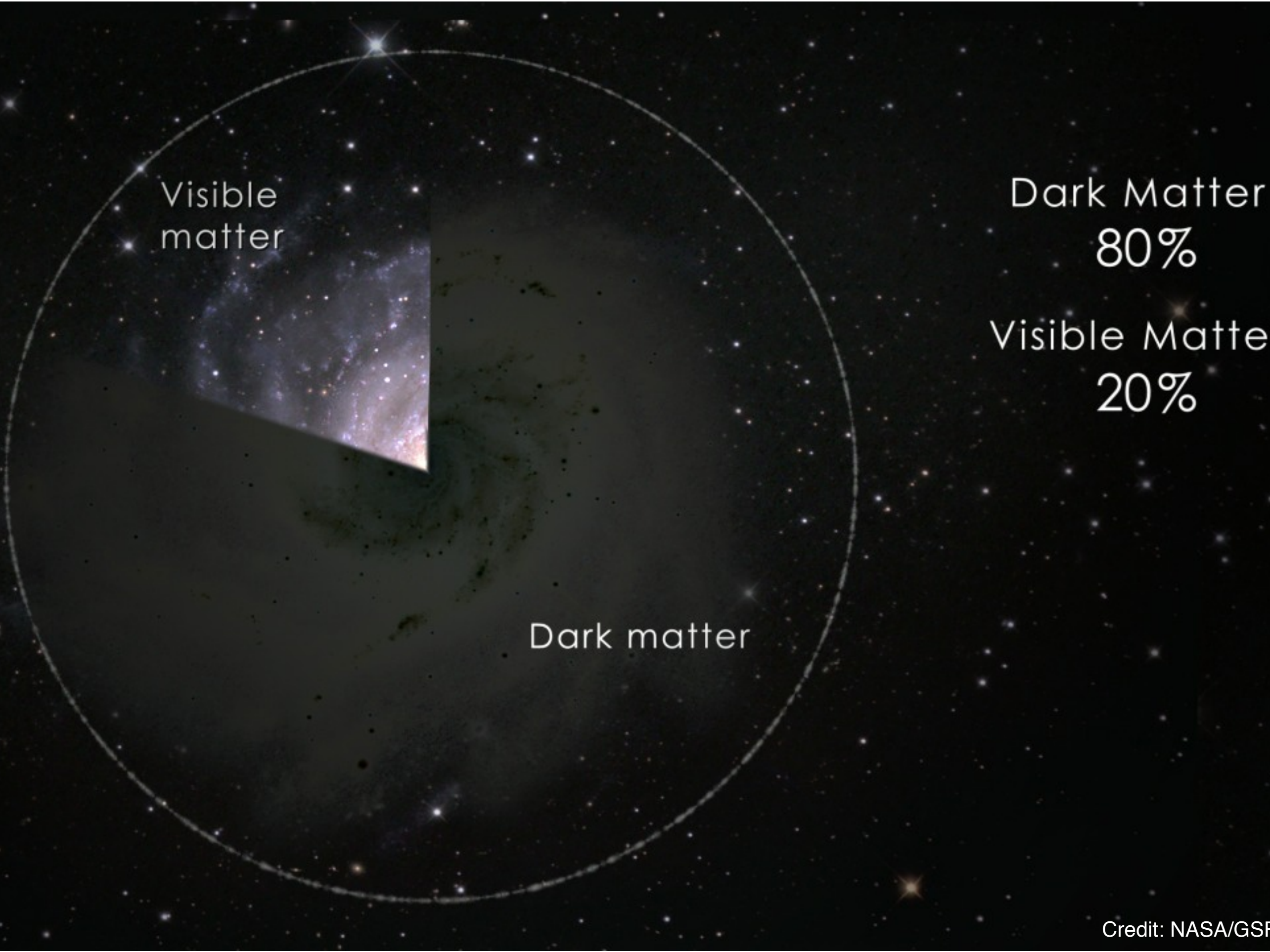
# Fermi LAT search for gamma rays from dwarf galaxies

Recent Fermi LAT combined analysis of 10 dwarf spheroidal galaxies (dSphs) does not detect a gamma-ray signal → places strong limits on dark matter particle properties

- there are roughly two dozen known dSphs of the Milky Way; many discovered only in the last few years!
- some of the most dark-matter--dominated objects in the Universe
- no astrophysical gamma-ray production expected → very “clean” targets for gamma-ray signals from dark matter







Visible  
matter

Dark matter

Dark Matter  
80%

Visible Matter  
20%

