

# Search for Dark Matter Annihilation from the Milky Way Dwarf Spheroidal Galaxies with Twelve Years of Fermi-LAT Data

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The upper limits from the Milky Way (MW) dwarf spheroidal galaxies remain one of the most important constraints on dark matter (DM) annihilation, and specifically, they are crucial for DM interpretations of the Galactic center excess. The last detailed analysis by the Fermi-LAT Collaboration dedicated to studying the dwarfs was published in 2017, using roughly 6 years of data. Now, with over twice as much data, an updated MW satellite census, and in anticipation for the upcoming Vera Rubin Observatory, it is an ideal time for an updated dwarf DM analysis. With this in mind, we have undertaken a new study of the dwarfs, and in this talk I will outline the analysis and present preliminary results. Additionally, as part of the analysis we make use of DMSky (a tool for calculating J-factors and cataloging the different values from the literature), and we work to further develop this tool to make it increasingly useful to the DM community.

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