## Abstract Submitted for the 4CS19 Meeting of The American Physical Society

Introducing the Model-Agnostic Dark Halo Analysis Tool (MADHAT)<sup>1</sup> PEARL SANDICK, University of Utah, KIMBERLY BODDY, Johns Hopkins University, STEPHEN HILL, JASON KUMAR, University of Hawaii, BARMAK SHAMS ES HAGHI, University of Utah — We present a brief overview of the Model-Agnostic Dark Halo Analysis Tool (MADHAT), a numerical tool that implements a Fermi-LAT data-driven, model-independent analysis of gamma-ray emission due to dark matter annihilation in dwarf spheroidal galaxies. This tool efficiently provides statistical upper bounds on dark matter annihilation using a stacked analysis of any selected set of dwarf spheroidal galaxy targets, under any assumptions the user makes regarding dark sector particle physics or astrophysics.

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