

Abstract Submitted
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Searching for the radiative decay of sterile neutrino dark matter with Swift XRT AARON TOHUVAVOHU, Pennsylvania State Univ — In the past few years there have been multiple claimed detections of a 3.5 keV line consistent with the signature of sterile neutrino dark matter decay, from several astrophysical sources, using data from various X-ray missions (Chandra, XMM-Newton, Suzaku). We present recent results and ongoing work to constrain the sterile neutrino parameter space using archival observations performed by the Swift X-Ray Telescope (XRT). We discuss the relative merits and limitations of Swift XRT for this work as compared to other X-ray missions and present results from a search for the 3.5 keV line in deep (> 1 Ms) observations of M31, several ultra-faint dwarf galaxies, and deep fields.

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