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Abstract for an Invited Paper for the APR16 Meeting of the American Physical Society

## Dark Matter and the 3.5 keV signal

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I will give an overview of the analyses leading to the recent detection of X-rays from clusters of galaxies and Andromeda consistent with monoenergetic photons from dark matter decay such as that predicted from sterile neutrino dark matter. I shall discuss these signals' potential verification in the very near future. Sterile neutrino dark matter interpretations have implications for outstanding problems in galaxy formation. The direct detection of sterile neutrino dark matter would require novel methods.