

Abstract Submitted  
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**X-ray and multiwavelength observations of the potential AGN in UGC 9367** RUJUTA PUROHIT, RYAN HICKOX, Dartmouth College — Super-massive black holes are found at the centers of most massive galaxies. The accretion of gas onto such a black hole is called an active galactic nucleus (AGN) that emits radiation over many different wavelengths. Dwarf galaxies, in particular, are potentially interesting hosts for AGN, as they may contain black holes that have not grown significantly since the epoch of their formation in the early Universe. UGC 9367 is a dwarf galaxy in the Boötes constellation that has signatures of potential AGN based on its X-ray and optical line properties. It has a mass of about  $10^9 M_{\odot}$  and a redshift of 0.34. We calculate the mid-Infrared and the [O III] luminosities and compare these to the observed X-ray luminosity, in reference to established relationships in literature. We also plot the spectral energy distribution and the BPT diagram for the galaxy to better understand its nature. These provide significant evidence for the fact that UGC 9367 hosts an AGN that is relatively unobscured by gas and dust and represents the very few to be detected in dwarf galaxies using X-ray observations.

Rujuta Purohit  
Dartmouth College

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