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Morphological Tests of the Pulsar and Dark Matter Interpretations of the WMAP Haze J. PATRICK HARDING, University of Maryland — The WMAP Haze is an excess in microwave emission coming from the center of the Milky Way galaxy. In the case of synchrotron emission models of the Haze, we present tests for the source of radiating high-energy electrons/positrons. We explore several models in the case of a pulsar population or dark matter coannihilation as the source. These morphological signatures of these models are small behind the WMAP Galactic mask, but are testable and constrain the source models. In particular, a zero central density Galactic pulsar population model is in tension with the observed WMAP Haze. The Planck observatory's greater sensitivity and expected smaller Galactic mask should potentially provide a robust signature of the WMAP Haze as either a pulsar population or the dark matter.

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