

The Bizarre Central Star of SuWt2

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Abstract. SuWt2 has been found to contain a double lined and eclipsing binary system. Surprisingly, both components appear to be A-type stars with masses of about $3 M_{\odot}$ moving in essentially circular orbits with a period of 4.9 days. We see no indications of a hotter component in the optical or IUE spectra. We discuss the possibility that this is a triple system.

Deep $H\alpha$ + [N II] images show the nebula to be an inclined ring ($\sim 60^{\circ}$ to the line of sight) while spectra show anomalous line ratios (eg $I([\text{N II}] 6584) \gg I(H\alpha)$) which maybe indicative of recombination in a changing radiation field. Further modeling is ongoing.

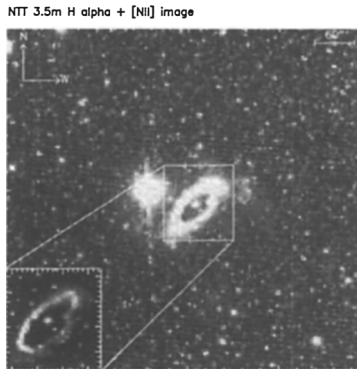


Figure 1. Narrow-band image of SuWt2. The faint bipolar lobes are only faintly visible on the original CCD image.

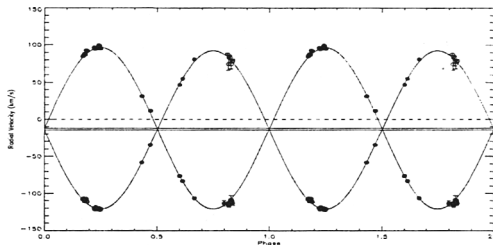


Figure 2. SuWt2 double lined radial velocity curve