

THE BINARY CEPHEID S SAGITTAE REVISITED

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Abstract. A new orbit has been derived for the binary Cepheid S Sagittae = HD 188727 = BD+16°4067, using both extant data and new radial velocities derived from radial velocity spectrometer observations at McDonald Observatory and the Dominion Astrophysical Observatory. We deconvolved both the pulsational and orbital components from the observed velocities in order to fit a truncated Fourier series to the pulsation velocities and to derive orbital elements respectively. We confirm the orbital elements given in Herbig and Moore (1952) and speculate that the secular trend evident in the orbital (O-C) diagram may be interpreted as evidence for a third component. (See Evans, Slovak and Welch, this volume, for IUE observations supporting this interpretation.)