

ST CARINAE, AN ALGOL-TYPE SYSTEM IN A POSSIBLE STATE OF RAPID MASS EXCHANGE

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ST Carinae is an eclipsing binary with a period of 0.90165 days and is believed to consist of an A0 V primary and a secondary of type F5 - 8 IV. About 900 observations in UBV, made by Somerville in 1963, but unreduced at that time, are analyzed with the Wood Model. These are also compared with the solutions obtained by previous investigators of this system. The solutions indicate a reasonably consistent geometry, but there is still substantial uncertainty with regard to the mass-ratio and dynamical status of the system. The possibility exists that ST CAR is in the initial and rapid stage of mass exchange in which the primary component fills its Roche lobe and is losing mass to its companion. The two components of ST CAR appear to be of normal dimensions, but additional work is needed to clarify the exact status of this system. It is planned that a re-analysis using the Simplex program will clarify the dynamical status of ST CAR.