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Asymmetric disk heating in an extreme binary, epsilon Aurigae: a useful tool for unveiling a system's unknowns RICHARD PEARSON, University of Denver — Epsilon Aurigae is a 27-year eclipsing binary system consisting of a large, warm F0 star and a hidden companion inside a semi-grey, opaque disk. The evolutionary state (and hence, the characteristics of the system components) is not well-defined due to a large uncertainty in the determined distance. By using the observed disk temperatures, I attempt to resolve the distance discrepancy by analytic and numeric means. Both methods require investigation of the disk properties. Examination of disk temperatures in epsilon Aurigae creates a blueprint for a novel way of determining dust properties and other characteristics of additional dusty systems. This is another tool for extracting information from systems with limited known quantities. I am grateful to the estate of William Herschel Womble for the support of astrophysics at the University of Denver.

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