

Abstract Submitted  
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**Approximate Solar Temperatures from Color Indices Measured at the Winfree Observatory** CHERIDAN HARRIS, Randolph-Macon Woman's College, TOM MICHALIK, Randolph College — Astronomers define the color index of a star as a numerical expression of the light being emitted from the surface of a star, which is calculated using successive measurements of a star's magnitude through two different colored filters. These filter may be sensitive to either blue(B), red (R), or visible (V) light. Approximately, the higher the color index, the closer the visible light being emitted from the star is to the red end of the spectrum. Assuming the emitted light from the surface of the star can be approximated by the blackbody curve, we attempt to find the relationship between the indices, both B- V and V-R filters, and the surface temperature of the star. We apply this relationship to long term data collected at the Winfree Observatory.

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