1067-Z1-2163 **Yesem Kurt Peker*** (ykurt@randolphcollege.edu), Randolph College, 2500 Rivermont Ave, Lynchburg, VA 24503, **Catherine Beneteau** (cbeneteau@usf.edu), University of South Florida, Tampa, FL , and **David A. Eubanks** (deubanks@jcsu.edu), Johnson C. Smith University, Charlotte, NC. *RGB to HSI.* Preliminary report.

In this presentation we will share our work on the HSI (Hue,Saturation,Intensity) color coding scheme, in particular, the relation of it to the RGB (Red,Green,Blue) scheme and our understanding of what exactly hue, saturation, and intensity mean. We will demonstrate these meanings with programs written in the software Mathematica. The conversions from HSI to RGB and RGB to HSI spaces involve various topics in calculus, particularly in multivariable calculus, and can be used as a valuable teaching/learning tool in those courses. Also, understanding the HSI scheme is the first step toward using it in applications. It is a scheme that is used extensively in image processing along with other color coding schemes. (Received September 22, 2010)