

Meeting: 1003, Atlanta, Georgia, MAA CP X1, MAA General Contributed Paper Session, I

1003-X1-223 **Charles J Kicey***, Math and Computer Science, Valdosta State University, Valdosta, GA 31698, and **Jun Ji**, Mathematics Department, Kennesaw State University, Kennesaw, GA 30144. *The Slope Mean and Its Invariance Properties.*

A mean that we call the slope mean is motivated and introduced in this note. In the case of two numbers, the slope mean $S(a,b)$ of real numbers a and b returns the slope of the line that bisects the angle formed by lines with slopes a and b . Although the slope mean is not homogeneous, we will see how it is closely related to three classic means. We will discuss how this mean, as well as three classic means, can be uniquely determined by their own invariance under two sets (algebraic groups) of functions. (Received August 31, 2004)