

1135-B1-2718

**Thomas W Polaski\*** (polaskit@winthrop.edu), Department of Mathematics, Winthrop University, Rock Hill, SC 29733. *On Bonobos and Baseball: an Application of David's Score.*

In the 1980's the statistician H. A. David developed a method for ranking the members of a social group in a dominance hierarchy. This method, called David's score, takes into account the highly variable number of encounters between the animals competing for dominance and the relative strength of each animal's opponents. David's score has been used to model social structure in animals including bonobos, as well as to study the steepness of the dominance hierarchy in bonobo colonies. In this talk, the author will discuss David's score and its connection to other ranking methods popular in sports analytics. The score will then be applied to Major League Baseball, where the number of encounters between teams is likewise highly variable and relative strength of opponents is included in many ranking systems. (Received September 26, 2017)