1086-VI-499 **Jeremy F Entner*** (jentner@syr.edu), Syracuse University, 215 Carnegie, Mathematics Department, Syracuse, NY 13244, and **Pinyuen Chen**. *Methods of nonparametric selection of the least dispersed of k multivariate populations.*

Given k multivariate populations $\pi_i = \pi(P_i)$ on $\mathbb{R}^d, d > 1$, with absolutely continuous distributions P_i, defined on random variables X_i for $i = 1, \ldots, k$, we propose procedures for selecting the "least dispersed" member from a group of k populations. We define our measure of dispersion in terms of the volume of the smallest regions, based on Tukey's halfspace depth, to contain at least p probability. (Received September 05, 2012)