

1086-VI-1484

**Janfeng Zhang, David J. Olive and Ping Ye\*** (yepi@quincy.edu), 3010 Fox Run W, Quincy, IL 62301. *Robust Covariance Matrix Estimation with Canonical Correlation Analysis.*

This paper gives three easily computed highly outlier resistant robust  $\sqrt{n}$  consistent estimators of multivariate location and dispersion for elliptically contoured distributions with fourth moments. When the data is from a multivariate normal distribution, the dispersion estimators are also consistent estimators of the covariance matrix. Outlier detection and robust canonical correlation analysis are presented as applications. (Received September 22, 2012)