1067-62-1492 **Hasan Hamdan** (hamdanhx@jmu.edu), Harrisonburg, VA 22801, **Ling Xu** (xulx@jmu.edu), Harrisonburg, VA 22801, **Holly Gardner** (hgardner.nola@gmail.com), New Orleans, LA 70122, **Sam Helmich** (sam.helmich@gmail.com), Winona, MN 55988, **Caitlin Steiner*** (steiner.caitlin@gmail.com), Sterling, VA 20164, and **Kevin Stoll** (kevstoll@gmail.com), Norwalk, OH 44857. *Estimating Variance-Mean Mixtures of Normals.*

In this presentation, we will introduce a new method, NVM_UNMIX for estimating the density function of Normal variance-mean mixtures. This new method is a manipulation of the previously developed Normal scale mixture program UNMIX (Hamdan et al., 2005). NVM_UNMIX is designed to model Normal variance-mean mixtures by minimizing the weighted square distance between an empirical density and the theoretical mixture, taking into account any factors that effect the variability of the estimates. This modeling technique is then evaluated using several simulated examples and is compared to the Bayesian approach in a couple of real life situations. It was found, from the simulation that NVM_UNMIX appears to performed with efficiently and precision when modeling well-mixed and partially mixed distributions, which is unique among mixture estimators. Compared to non-informative Bayesian approach, it was also found to accurately model skewness and robustness in the tails of real-life data. (Received September 21, 2010)