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1003-62-1578      **Kristen Dardia** ([dardiakm@jmu.edu](mailto:dardiakm@jmu.edu)), 7803, Dept of Math and Stat, James Madison University, Harrisonburg, VA 22807, **Melanie Wilson\*** ([wilsonm3@allegheny.edu](mailto:wilsonm3@allegheny.edu)), Department and Math and Stat, Allegheny College, Pittsburgh, PA, and **Hamdan Hasan** ([hamdanhx@jmu.edu](mailto:hamdanhx@jmu.edu)), 7803, Department of Mathematics and Statistics, James madison University, Harrisonburg, VA 22807.  
*Using Scale Mixtures of Normals to Model Continuously Compounded.*

In this paper, a new method for estimating the parameters of scale mixtures of normals is presented and evaluated. The new method is called UNMIX and is based on minimizing the weighted square distance between exact values of the density of the scale mixture and estimated values using kernel smoothing techniques over a pre-specified grid of x-values and a grid of potential sigma values. Applications of the method are made in modeling the continuously compounded return of stock prices. Modeling this ratio with UNMIX proves promising in comparison with other existing techniques that use only one normal component, or those that use more than one component based on the EM algorithm as the method of estimation. (Received October 05, 2004)