1083-92-209 **John Fricks*** (fricks@stat.psu.edu), 325 Thomas Bldg, University Park, PA 16801. *Detection of Heterogeneity in Microrheological Experiments.* Preliminary report.

Passive microrheological experiments attempt to probe the structure of soft matter through the observation of the diffusion paths of small particles. One outstanding issue is the detection of heterogeneity across multiple paths, which would imply a spatial heterogeneity of the material under study. By applying standard and novel methods from the statistical time series literature, this talk will present some possible quantitative approaches to these problems. This is joint work with a significant group of researches including Gustavo Didier (Tulane U), Scott McKinley (U Florida), and a group at (U North Carolina) led by Greg Forest and David Hill. (Received August 28, 2012)