1037-42-100   **Kasso Okoudjou***, Department of Mathematics, University of Maryland, College Park, MD. *A Beurling-Helson type theorem for modulation spaces.*

In this talk we shall prove a Beurling-Helson type theorem on modulation spaces, by characterizing all smooth changes of variables that leave invariant these spaces. More specifically, we show that the only smooth changes of variables that leave invariant the modulation spaces on $\mathbb{R}^d$ are affine functions. A special case of our result involving the Sjöstrand algebra was considered earlier by A. Boulkhemair. (Received January 25, 2008)