

Title: *Some algebras of pseudo-local product kernels*

Abstract: What is the nature of the Schwartz kernel for the composition of two convolution operators having Calderón-Zygmund kernels with different homogeneities? Such questions arise for example in the study of the  $\bar{\partial}$ -Neumann problem in several complex variables. In joint work with F. Ricci, E.M. Stein, and S. Wainger we study such convolutions on a homogeneous nilpotent Lie group. The resulting kernels are product kernels and are not weak-type  $(1, 1)$ . However, they satisfy better estimates and in fact are pseudo-local.