962-58-808 **Jeffrey J Mitchell*** (`Jeffrey_Mitchell@baylor.edu`), Mathematics Department, Baylor University, P.O. Box 97328, Waco, TX 76798. *Asymptotic Behavior of Special Functions in Heat Kernel Analysis.*

Motivated by Gross' work on the loop space of a compact Lie group, various families of special functions have been found to arise naturally in the study of heat kernel analysis on Lie groups and homogeneous spaces. For example, analogs of the Hermite polynomials and coherent states are known to possess properties similar to their classical counterparts. In this talk, we will discuss several problems and results concerning the asymptotic behavior of these special functions. (Received September 26, 2000)