

1115-22-229

**Benjamin Harris\*** ([benjamin.harris@simons-rock.edu](mailto:benjamin.harris@simons-rock.edu)). *Regular Elliptic Cotangent Vectors and Regular Elliptic Discrete Spectra.*

An element of a Lie group is called elliptic if it is contained in a compact subgroup. When  $G$  is a reductive Lie group, Harish-Chandra showed that  $L^2(G)$  has a discrete spectrum if, and only if  $G$  contains an open subset of elliptic elements.

Let  $X$  be a homogeneous space for a real, reductive algebraic group  $G$ . In this talk, we explore the relationship between regular elliptic cotangent vectors in  $T^*X$  and regular elliptic discrete spectra in  $L^2(X)$ .

This talk is related to a joint paper with Gestur Olafsson and Hongyu He and a joint paper with Tobias Weich. (Received September 19, 2015)