

April 3, 1997

**M. S. Raghunathan,
Tata Institute of Fundamental Research
and The University of Michigan**

"Free Resolutions"

Abstract:

There has been considerable interest in the question whether compact locally symmetric spaces of rank 1 admit finite coverings with non-zero first Betti number. In this talk we outline some of the progress made on this problem using connections with the congruence subgroup problem. The technique yields results in the case of all arithmetic fundamental groups for spaces of constant curvature in dimensions other than 3 and 7.