

1053-11-116

**A. Raghuram\*** ([araghur@math.okstate.edu](mailto:araghur@math.okstate.edu)), Department of Mathematics, Oklahoma State University, Stillwater, OK 74078. *Eisenstein cohomology and special values of Rankin-Selberg L-functions*. Preliminary report.

I will begin this talk by introducing Eisenstein cohomology. Then, I will show how one can use an analysis of rank one Eisenstein cohomology for the group  $GL(N)$ , where  $N$  is an odd positive integer that is at least 3, to prove algebraicity theorems for ratios of critical values of Rankin-Selberg L-functions for  $GL(a) \times GL(b)$ , with  $a + b = N$ . This is joint work with Guenter Harder, which generalizes previous work of Harder in the case of  $GL(2) \times GL(1)$ , and complements my own recent work on the central critical value of L-functions for  $GL(n) \times GL(n-1)$ . (Received August 27, 2009)