A. Raghuram* (araghur@math.okstate.edu), Department of Mathematics, 401 Mathematical Sciences, Oklahoma State University, Stillwater, OK 74078. Eisenstein cohomology and special values of Rankin-Selberg $L$-functions.

I will introduce the notion of Eisenstein cohomology and show how one can use it to prove algebraicity results for ratios of successive critical values for the Rankin-Selberg $L$-functions for $\text{GL}(n) \times \text{GL}(m)$ under the parity restriction that $n+m$ is odd. This is joint work with Guenter Harder, and it generalizes previous work of Harder in the case of $\text{GL}(2) \times \text{GL}(1)$, and complements my own results on $\text{GL}(n) \times \text{GL}(n-1)$. (Received January 16, 2011)