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**Luis Garcia\***, Department of Mathematics, University of Toronto, 40 St. George Street, #6290, Toronto, M5S 2E4, Canada. *Eisenstein cohomology and equivariant transgressions of the Euler class.*

I will discuss work in progress giving a new construction of Eisenstein classes on  $GL(n)$  first defined by Nori and Szczec, based on results of Bismut and Cheeger providing canonical transgressions of Euler forms. Our method realises these Eisenstein classes as regularised theta lifts for the dual pair  $(GL(1), GL(n))$  and admits a natural extension to the pair  $(GL(r), GL(n))$  for  $r > 1$ . I will describe the resulting generalisation of the Eisenstein cocycle and its relation with  $GL(r, \mathbb{Z})$  equivariant cohomology of the universal bundle of metrized tori. Joint work with Nicolas Bergeron, Pierre Charollois and Akshay Venkatesh. (Received September 20, 2018)