

1056-22-1046

Raf Cluckers, Clifton Cunningham and **Julia Gordon*** (gor@math.ubc.ca), Department of Mathematics, UBC, 121-1984 Mathematics Rd., Vancouver, BC V6T 1Z2, Canada, and **Loren Spice**. *Motivic integration and Harish-Chandra characters*. Preliminary report.

I will prove that the characters of a certain class of supercuspidal representations near the identity belong to the class of so-called constructible motivic exponential functions. Functions in this class are defined in terms of a language of logic, and that allows to define them in a field-independent way. Therefore, one can transfer the results about constructible motivic functions between local fields of characteristic zero, and local fields of positive characteristic, when the residue field characteristic is large. Having established that certain characters belong to this class, I will describe some recent attempts to use this result to study their local constancy and local integrability. (Received September 20, 2009)