

1081-22-36

David Ben-Zvi* (benzvi@math.utexas.edu), Mathematics Department, University of Texas, 1 University Station C1200, Austin, TX 78751, and **David Nadler**, Mathematics Department, Northwestern University. *Geometric Theory of Harish Chandra Characters*.

We will discuss a general theory of characters in derived algebraic geometry, including Grothendieck-Riemann-Roch and Atiyah-Bott-Lefschetz type formulae for calculating characters. When applied to the action of a reductive group on the category of representations of its Lie algebra, we find a geometric construction of Harish Chandra's characters for admissible representations and deduce the character formulas of Schmid-Vilonen. (Received January 11, 2012)