

1131-16-361

Johannes Flake* (flake@math.rutgers.edu) and **Siddhartha Sahi**. *Dirac cohomology, Hopf–Hecke algebras and infinitesimal Cherednik algebras.*

Dirac operators and their cohomology have been used to study representations of different algebraic objects, including semisimple Lie groups and degenerate affine Hecke algebras. Looking for a common generalization, as suggested by Dan Barbasch and Siddhartha Sahi, we consider a class of PBW deformations with an orthogonality condition, which we call Hopf–Hecke algebras.

We will discuss results on the classification of Hopf–Hecke algebras, on the relation between Dirac cohomology and central characters in this general setting, and on the Dirac cohomology of infinitesimal Cherednik algebras of the general linear group as a new example. (Received July 18, 2017)