

1119-17-201

Daniele Rosso* (rosso@math.ucr.edu). *Mirabolic quantum \mathfrak{sl}_2 .*

Beilinson-Lusztig-MacPherson constructed the quantum enveloping algebra $U_q(\mathfrak{sl}_n)$ (and the q -Schur algebras) as a convolution algebra over the space of pairs of partial n -step flags over a finite field. We will explain how to expand the construction to the mirabolic setting of triples of two partial flags and a vector, and examine the resulting convolution algebra. In the case of $n=2$, we classify its finite dimensional irreducible representations and we describe a mirabolic version of the quantum Schur-Weyl duality. (Received February 15, 2016)