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

Beilinson-Lusztig-MacPherson gave a construction of the quantum enveloping algebra $U_q(\mathfrak{sl}_n)$ (and of the q-Schur algebras) as a convolution algebra on the space of pairs of partial n-step flags over a finite field. In this paper we study the associative algebra defined by a convolution product in the mirabolic setting (triples of two partial flags and a vector). In the case $n = 2$ we classify irreducible finite dimensional representations and discuss a mirabolic version of quantum Schur-Weyl duality. (Received August 09, 2015)