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**Lefschetz property, Schur-Weyl duality and a  $q$ -deformation of Specht polynomial.** (English)

Zbl 1125.20001

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The paper under review studies the well-known Schur-Weyl duality between the quantum group  $U_q(sl_d)$  and the Hecke algebra  $H$  associated to the symmetric group  $S_n$  when  $q$  is generic. The main result is a description of the generators of each irreducible  $U_q(sl_d)$ - $H$  bimodule in terms of certain  $q$ -analogues of Specht polynomials. The author also uses the Lefschetz property to construct a linear basis of the irreducible  $U_q(sl_d)$ -submodule inside the  $n$ -tensor space when  $d = 2$ .

Reviewer: **Hu Jun** (Beijing)

**MSC:**

**20C08** Hecke algebras and their representations

**17B37** Quantum groups (quantized enveloping algebras) and related deformations

Cited in **2** Documents

**Keywords:**

quantum groups; Hecke algebras; Schur-Weyl duality; Specht polynomials

**Full Text:** [DOI](#)

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