

Geck, Meinolf; Pfeiffer, Götz

On the irreducible characters of Hecke algebras. (English) Zbl 0816.20034
Adv. Math. 102, No. 1, 79-94 (1993).

Let W be a finite Weyl group, and K an arbitrary field. Let H_K be the Hecke algebra associated with W over K with parameters q_s , $s \in S$, where $S \subset W$ is a corresponding set of simple reflections. The authors show that the values of the irreducible characters are constant on basis elements T_w , where w runs over the elements of minimal length in a given conjugacy class of W , and that the values on any other basis element can be computed from these by a simple algorithm. This was first done by A. J. Starkey and A. Ram for the Hecke algebra of type A_1 .

Reviewer: [Ye Jiachen \(Shanghai\)](#)

MSC:

- [20G05](#) Representation theory for linear algebraic groups
- [20C30](#) Representations of finite symmetric groups
- [20G40](#) Linear algebraic groups over finite fields
- [20F55](#) Reflection and Coxeter groups (group-theoretic aspects)
- [20H15](#) Other geometric groups, including crystallographic groups

Cited in **7** Reviews
Cited in **37** Documents

Keywords:

finite Weyl groups; Hecke algebras; simple reflections; irreducible characters; elements of minimal length; conjugacy classes

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