

Lusztig, George

On the left cells of Weyl groups. (Sur les cellules gauches des groupes de Weyl.) (French)

Zbl 0615.20020

C. R. Acad. Sci., Paris, Sér. I 302, 5-8 (1986).

Let W be a Weyl group. In [Characters of reductive groups over a finite field (Ann. Math. Stud. 107, 1984; Zbl 0556.20033)], the author associated each left cell Γ of W with a $\mathbb{C}[W]$ -module $[\Gamma]$ and then he proved that any constructible representation of W has the form $[\Gamma]$ for some left cell Γ of W . In the present paper, the author proves the converse that the $\mathbb{C}[W]$ -modules $[\Gamma]$ are constructible for all left cells Γ of W . Since the structures of all constructible representations of W are known, the above result can be regarded as an explicit description of the $\mathbb{C}[W]$ -modules $[\Gamma]$ with Γ the left cells of W .

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MSC:

20G05 Representation theory for linear algebraic groups

Cited in **1** Review
Cited in **13** Documents

Keywords:

Weyl groups; constructible representations; left cells