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加权的~Coxeter~群~ $\widetilde{\mathbf{C}}_{\mathbf{n}}$ ~的左胞腔

黄 谦

华东师范大学 数学系, 上海 200241

Left cells in the weighted Coxeter group $\widetilde{\mathbf{C}}_{\mathbf{n}}$

HUANG Qian

Department of Mathematics, East China Normal University, Shanghai 200241, China

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全文: PDF (558 KB) HTML (1 KB) 输出: BibTeX | EndNote (RIS) 背景资料

摘要 仿射~Weyl~群~ $(\widetilde{A}_{2n}, \widetilde{S})$ 在某个群同构~ α ~(其中~ $\alpha(\widetilde{S}) = \widetilde{S}$ ~)下的固定点集合能被看作是仿射~Weyl~群~ (\widetilde{C}_n, S) . 那么加权的~Coxeter~群~ (\widetilde{C}_n, ℓ) 的左和双边胞腔~ ℓ 是仿射~Weyl~群~ (\widetilde{A}_{2n}) ~的长度函数, 就能通过研究仿射~Weyl~群~ $(\widetilde{A}_{2n}, \widetilde{S})$ 在群同构~ α ~下的固定点集合而给出一个清晰的划分. 因此给出了加权的~Coxeter~群~ (\widetilde{C}_n, ℓ) 对应于划分~ $\mathbf{k} \in \mathbf{1}^{\mathbf{2n+1-k}}$ ~和~ $(2n-1, 2)$ 的所有左胞腔的清晰刻画, 这里对所有的~ $1 \leq k \leq 2n+1$.

关键词: 仿射~Weyl~群 左胞腔 拟分裂 加权的~Coxeter~群

Abstract: The fixed point set of the affine Weyl group $(\widetilde{A}_{2n}, \widetilde{S})$ under a certain group automorphism α with $\alpha(\widetilde{S}) = \widetilde{S}$ can be considered as the affine Weyl group (\widetilde{C}_n, S) . Then the left and two-sided cells of the weighted Coxeter group (\widetilde{C}_n, ℓ) , where ℓ is the length function of (\widetilde{A}_{2n}) , can be given an explicit description by studying the fixed point set of the affine Weyl group $(\widetilde{A}_{2n}, \widetilde{S})$ under α . We describe the cells of (\widetilde{C}_n, ℓ) corresponding to the partitions $\mathbf{k} \in \mathbf{1}^{\mathbf{2n+1-k}}$ with $1 \leq k \leq 2n+1$ and $(2n-1, 2)$.

Key words: affine Weyl groups left cells quasi-split case weighted Coxeter group

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