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

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

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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~ $\alpha$ ~(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~ $(\widetilde{C}_n, \widetilde{\ell})$ 的左和双边胞腔~ $\widetilde{\ell}$ 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~ $\alpha$ ~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~ $(\widetilde{C}_n, \widetilde{\ell})$ 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  $\alpha$  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  $(\widetilde{C}_n, \widetilde{\ell})$ , where  $\widetilde{\ell}$  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  $\alpha$ . We describe the cells of  $(\widetilde{C}_n, \widetilde{\ell})$  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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