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$\overline{\emph{\textbf{U}}}_{{\bm r},{\bm s}}\textbf{(}{\bm sl}_{\bf 2}\textbf{)}$，关于主不可分解模的直和分解

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Direct sum decomposition of $\overline{\emph{\textbf{U}}}_{{\bm r},{\bm s}}\textbf{(}{\bm s}{\bm l}_{\bf 2}\textbf{)}$ about principal indecomposable modules

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全文: PDF (444 KB)   HTML (1 KB)   输出: BibTeX | EndNote (RIS)   背景资料

摘要 描述了限制型双参数量子群\,$\overline{U}_{r,s}(sl_2)$\,的一类不可约模, 构造出\,$\overline{U}_{r,s}(sl_2)$\,所有的主不可分解模. 把\,Casimir\,元素的左乘作用看作\,$\overline{U}_{r,s}(sl_2)$\,到自身的线性变换, 得到了\,Casimir\,元素作用在\,$\overline{U}_{r,s}(sl_2)$\,上的极小多项式和\,$\overline{U}_{r,s}(sl_2)$\,本原幂等元的全部共轭类.

关键词: Casimir\,元素   广义特征子空间   主不可分解模   本原幂等元

Abstract： This paper described a class of irreducible modules of the restricted two-parameter quantum group $\overline{U}_{r,s}(sl_2)$, and constructed all its principal indecomposable modules. Finally, the minimal polynomial of the action of the Casimir element on $\overline{U}_{r,s}(sl_2)$ and all the conjugate classes of the

primitive idempotents of $\overline{U}_{r,s}(sl_2)$ were obtained.

Key words: Casimir element   generalized eigenspace   indecomposable modules   primitive idempotents

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