

Serial Group Algebras

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The study of serial group algebras KG has been studied by Brauer and Dade etc. (where the characteristic p of K divide the degree of G). Hoever, in spite of the study has a long history, these algebras are not decided by words of G and the characteristic p . In this talk, in the case KS_n and KA_n for $n < 6$ are serial, we represent them by factor rings of skew-matrix rings over one varualble polinomial rings over K by using following result:

Result: *Let R be a basic indecomposable Nakayama algebra over an algebraically closed field K . Then R can be represented as a factor ring of a skew matrix ring $(Q)_{id, \bar{x}, t}$ with $Q = K[x]/(x^{d+1})$, $\sharp E(R) = t$, $|Q| = d + 1$.*