THE INDECOMPOSABLE PREPROJECTIVE AND PREINJECTIVE REPRESENTATIONS OF THE QUIVER $\tilde{D}_n$

ÁBEL LÓRINCZI and CSABA SZÁNTÓ

Abstract. Consider the quiver $\tilde{D}_n$ and its finite dimensional representations over the field $k$. We know due to Ringel in [7] that indecomposable representations without self extensions (called exceptional representations) can be exhibited using matrices involving as coefficients only 0 and 1, such that the number of nonzero coefficients is precisely $d-1$, where $d$ is the global dimension of the representation. This means that the corresponding "coefficient quiver" is a tree, so we will call such a presentation a "tree presentation". In this paper we describe explicit tree presentations for the indecomposable preprojective and preinjective representations of the quiver $\tilde{D}_n$. In this way we generalize results obtained by Mróz in [5] for the quiver $\tilde{D}_4$ and by Lórficz and Szántó in [4] for the quiver $\tilde{D}_5$.

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REFERENCES


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