Tree representations using Schofield induction

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Consider the finite dimensional representations of a quiver over the field k. We know due to Ringel that indecomposable representations without self extensions (called exceptional representations) can be constructed using matrices involving as coefficients 0 and 1, such that the number of nonzero coefficients is precisely $d-1$, where d is the global dimension of the representation. In this case the "coefficient quiver" is a tree, so we will call such a presentation a "tree representation".

Using the ideas exhibited in the proof by Ringel, we present a computational method to generate tree representations of preprojective and preinjective modules in the Euclidean case.

This is joint work with Szabolcs Lénárt, Csaba Szántó and István Szöllősi.

References

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