Classification of Finite Dimensional Representations of Leavitt Path Algebras*

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When Γ is a finite digraph, we classify all finite dimensional modules of the Leavitt path algebra $L_{\mathbb{F}}(\Gamma)$ via an explicit Morita equivalence given by an effective combinatorial (reduction) algorithm on the digraph Γ. The category of (unital) $L_{\mathbb{F}}(\Gamma)$-modules is equivalent to a full subcategory of quiver representations of Γ. However, the category of finite dimensional representations of $L_{\mathbb{F}}(\Gamma)$ is tame, in contrast to the finite dimensional quiver representations of Γ which are almost always wild. [5]

References

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