DIANA AVELLA, UNAM, Av Universidad 3000, Coyoacan, Mexico City, Mexico Combinatorial approach to the derived classification of gentle algebras

An interesting family in representation theory is the one consisting of gentle algebras. This family is closed under derived equivalence by a result of Schröer and Zimmermann; because of the way in which these algebras are defined they can be described and manipulated in a very easy combinatorial way, in order to understand their derived equivalence classes. We will discuss the results obtained for gentle algebras of two cycles and some generalizations for gentle algebras with more than two cycles, by using this combinatorial approach.