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Higher Auslander Algebras and Fundamental Domains of Cluster Categories

Endomorphism algebras of the fundamental domains of acyclic m -cluster categories (viewed as full subcategories of the appropriate derived categories) are shown by Emre Sen to be of higher representation finite type in the sense of Iyama. Iyama introduced the notion of higher Auslander algebras and higher representation finite algebras and he described the relation between those, generalizing the well known result of Auslander about the correspondence between Auslander algebras and algebras of finite representation type, up to Morita equivalence.

Auslander algebras are defined as ($\text{global dimension } A \leq 2 \leq \text{dominant dimension } A$) and higher k -Auslander algebras are defined as ($\text{global dimension } A \leq k + 1 \leq \text{dominant dimension } A$).