

# Derived equivalences in $n$ -angulated categories

Yiping Chen

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In this paper, we consider  $n$ -perforated Yoneda algebras for  $n$ -angulated categories, and show that, under some conditions,  $n$ -angles induce derived equivalences between the quotient algebras of  $n$ -perforated Yoneda algebras. This result generalizes some results of Hu, König and Xi. And it also establishes a connection between higher cluster theory and derived equivalences. Namely, in a cluster tilting subcategory of a triangulated category, an Auslander-Reiten  $n$ -angle implies a derived equivalence between two quotient algebras. This result can be compared with the fact that an Auslander-Reiten sequence suggests a derived equivalence between two algebras which was proved by Hu and Xi.

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