ABSTRACT ASPECTS OF HIGHER REPRESENTATION THEORY

ADAM-CHRISTIAAN VAN ROOSMALEN

Cluster categories of type A and triangulations of cyclically ordered sets

Abstract: (This talk is based on joint work with Jan Stovicek.)

There is a well-known correspondence between cluster-tilting objects in a cluster category of type A_n and the triangulations of an $n + 3$-gon (by work of Caldero-Chapoton-Schiffler and others). More generally, one can describe the cluster-tilting subcategories of an A_∞-type cluster category via triangulations of an ∞-gon (see work by Holm-Jørgensen, Liu-Paquette, and others). In this talk, we use a similar correspondence to motivate the definition of a triangulation of a locally discrete cyclically ordered set.