Mutation of τ-exceptional sequences for Nakayama algebras

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In the representation theory of hereditary finite-dimensional algebras, exceptional sequences are classical and their mutation is well-known to be transitive and satisfy braid group relations. For non-hereditary algebras, complete exceptional sequences generally do not exist. Using τ-tilting theory, a generalisation of classical tilting theory using Auslander-Reiten theory, Buan-Marsh generalised exceptional sequences to all finite-dimensional algebras in such a way that complete τ-exceptional sequences always exist.

Recently, mutation of τ-exceptional sequences was defined by Buan-Hanson-Marsh, generalising the hereditary setting. However, they are only able to characterise transitivity of the mutation for algebras with two simples. In this talk, I will explain how a dual viewpoint of Mendoza-Treffinger enables us to better understand the mutation of τ-exceptional sequences, which leads to a proof that mutation of τ-exceptional sequences is transitive for Nakayama algebras. This is joint work with A. Buan and H. Terland.

Trabajo en conjunto con Aslak Buan (NTNU, Norway) y Håvard Terland (NTNU, Norway).