Classifying aisles in bounded derived categories of path algebras

Hugh Thomas[*]

Let Q be an acyclic quiver. Colin Ingalls and I showed that torsion classes in kQ-mod with finitely many isomorphism classes of indecomposables are classified by the c-sortable elements (in the sense of Reading) of the Weyl group associated to Q. I will report on joint work with Christian Stump and Nathan Williams, in which we consider the extension of this problem to aisles in the bounded derived category of kQ-mod, building on work of Stanley-van Roosmalen. This requires the introduction of a notion of c-sortable element in the Artin group corresponding to Q.

---

[*]Department of Mathematics and Statistics, University of New Brunswick, PO Box 4400, Fredericton, NB
E3B 5A3, CANADA.