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Markus Schmidmeier* (markusschmidmeier@gmail.com). *How Homomorphisms Factor Through Auslander-Reiten Components.*

Given a homomorphism between modules over a finite dimensional algebra, and a connected component of the Auslander-Reiten quiver, we ask through which objects in the component the homomorphism factors.

In this talk we visualize in several cases of finite, tame and wild representation type, how certain particularly simple maps in the category of invariant subspaces of nilpotent linear operators factor through Auslander-Reiten components.

Our methods include tableaux for the description of modules, knowledge about the Auslander-Reiten translation, and a modified version of the Snake Lemma. (Received August 02, 2011)