Tilting modules and universal localizations

Abstract:
A recollement can be thought as a way to glue together two abelian or triangulated categories and obtain a bigger one. Motivated by the classification problem of (non-compact) tilting and silting modules, we study methods for gluing tilting objects along recollements, that means getting a tilting (resp., silting) object in the "big" category starting from two tilting (resp., silting) objects in the two "small" ones. We focus in particular on the recollements induced by a universal localization of rings and by one-point extensions of rings, or more generally by a triangular matrix ring, and give explicit gluing methods in these cases.

Supervisors:
Lidia Angeleri